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EXTRA-PERITONEAL CLOSURE OF ARTIFICIAL ANUS AND FÆCAL FISTULA.

BY

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DURING the past few years I have had to deal with a number of cases of fæcal fistula left after intestinal drainage in cases of obstruction; and also with some cases of artificial anus left after intestinal resection for malignant disease and for gangrene associated with obstruction. The method I employ is so safe, and has been so uniformly successful, that I think a short description of it may be acceptable.

The aim of the operation is to perform enterorraphy without opening the general peritoneal cavity; and this is managed by detaching from the parietes all round the fistula or anus sufficient peritoneum to permit delivery of the gut through a parietal incision without separating it from its peritoneal adhesions.

It is unnecessary to emphasise the importance of being able to deal with an intestinal fistula without opening the general cavity. This is the main feature underlying the procedure I advocate; and no arguments in its support need be adduced. But in respect of another feature, the approximation of surfaces

not covered with peritoneum but simply rawed or covered with cicatrix, for the purpose of closing an opening in intestines, some argument may be necessary.

Too much has been made of the agglutination of peritoneal surfaces in abdominal surgery. It is true that irritated peritoneal surfaces very soon become glued together by lymph. But such union is neither permanent nor strong. It serves a useful purpose by preventing leakage till true union by vascularised granulations takes place. It is by no means certain that two apposed surfaces of intact peritoneum unite as quickly as two surfaces denuded of peritoneum. The process of vascularisation, which is essential to true union, is not likely to be so rapid where a double layer of intact endothelium has to be pierced as where there is no such obstacle. Whether this be true or not, it is certain that in practice the fallacy of peritoneum to peritoneum has been proved again and again, and need not further be insisted upon. Here I do not seek to push this thesis to its full outcome: all I desire to insist upon is, that an opening in gut can be closed as satisfactorily and as speedily by the apposition of rough cicatricial tissue on its surface as by the apposition of intact peritoneum. The operation I suggest brings raw surface to raw, and does not involve peritoneum. There is a sufficiency of proof that it is successful and safe, and there is no need to carry the argument further.

Between the parietal peritoneum and any discharging intestinal opening is a circle of adhesions binding the bowel to the parietes. These adhesions are left intact. The bowel is delivered through an incision carried above and below the parietal opening along with parietal peritoneum, which is separated from parietes to any extent desired. The chief element in the operation is this separation of parietal peritoneum, with its fat, all round the fistula. It is remarkable how much freedom for manipulation a peritoneal stripping of an inch all round will give. A stripping over a circle of two inches radius will permit the gut to be delivered completely through the wound. The detachment is begun at a distance from the fistula, and carried down to it; it may be done almost entirely with the fingers. Further details may now be given.

Fæcal Fistula.

Here the bowel does not protrude through the parietal opening, and there is no spur, or only a slight one. A simple fistula lined with granulations leads from skin to bowel.

The granulations are first scraped from the sinus by means of a small sharp Volkmann's spoon, and the parts around are purified. If there is any discharge from the intestine, a small sponge with string attached is pushed through the fistula so as to block it.

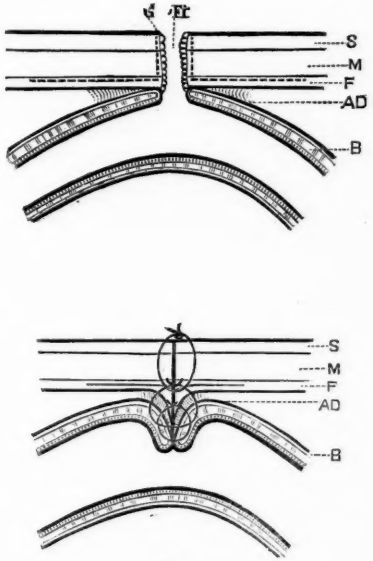

Fig. 1.

Diagrams to show method of Closing Fæcal Fistula.

Fi. Fistula in abdominal wall communicating with bowel.
G. Granulations lining fæcal fistula.
S. Skin. M. Muscular layer. F. Sub-peritoneal fascia.
AD. Adhesions between bowel and peritoneum surrounding fistula. B. Bowel.
Broken line in upper diagram shows incisions around fistula and in sub-peritoneal areolar tissue. Lower diagram shows operation finished and sutures placed.

Two incisions are now made in the parietes, with the fistula as centre, down to the sub-peritoneal areolar tissue. Their direction is to be guided by that of the principal muscular fibres in the parietes, so as to avoid their division and thus minimise

weakening of the parietes. A fistula in the middle line would have vertical incisions above and below it; in the loin it would be vertical or oblique, as we desire to preserve the fibres of the internal oblique muscle, or external oblique muscle and aponeurosis. The incision comes up to, but does not pass through, the fistula; it is carried round the fistula; the fistula with the cicatricial tissue surrounding it is bodily removed. The parietal incision goes down to the sub-peritoneal areolar and fatty tissue, but does not go through it. Then with finger and scissors the parietal peritoneum with its fat is detached from the muscle all round the fistula for a distance of from one to two inches. When the separation is complete, the fistulous tract is removed down to the gut. The bowel remains attached to the parietal peritoneum by adhesions around the fistulous opening. By means of forceps placed close to the opening, the bowel, with its attached peritoneum, may now be lifted out through the incision in the parietes. If there is any difficulty in doing this, a little more detachment of peritoneum will make it easy. The opening in the gut is now closed by infolding of the rawed areolar surfaces around the fistula and suturing by Lembert's method, as if smooth peritoneal surfaces only were involved. The line of closure may be vertical or transverse, as seems best. Two layers of closely-placed sutures, one continuous (Dupuytren), suffice for closure. The outer row will engage some of the sub-peritoneal areolar tissue, and should have a considerable grip of material. The sutured gut and peritoneum is pushed inside, and the parietal wound closed over it by silkworm gut sutures in the ordinary way. A small drainage tube laid over the line of gut suture adds to the security by preventing burrowing of fluids in case of leakage.

Artificial Anus.

Here the intestine itself forms the surrounding of the fistula; the mucous membrane of the bowel and the skin are practically continuous. There may be ectropion of intestinal mucous membrane or of the whole bowel. There will always be a spur more or less perfect, and, according to its perfection, requiring previous treatment. If there has been loss of bowel from re-

section or gangrene the spur will be dense and unyielding, but it need not be so large as when it is made simply by kinking.

In every case where the spur is well developed or where the intestine below the artificial anus is contracted it will be wise to devote a few days before operation to the amelioration of both conditions. For these purposes I have found Mitchell Banks's ingenious method, by means of a piece of rubber tubing, quite efficient. The tubing, if introduced on the stretch, may be of considerable dimensions. It rests comfortably in the large entering gut; dilates the contracted efferent gut, and presses back the encroaching spur (*Fig.* 2). It is kept in position by a loop of aluminium wire, which is passed into but

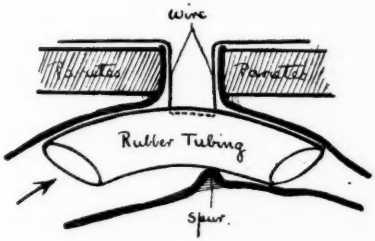

FIG. 2.

Diagram to show Banks's method of Reducing Spur and Dilating Contracted Bowel in Artificial Anus.

not through the wall of the tube, and is bent over the parietes by the side of the opening. This wire, if strong and fixed to the parietes by strapping, will prevent the tube both from being extruded and from being carried down the bowel. The tubing sets up some intestinal catarrh with secretion of mucus, and it may cause some pain. In most cases it can be borne with or without the assistance of opium. In a few days the spur will be reduced, and the lower gut will be dilated. A couple of days' rest may be given to the irritated intestine before operation.

The operation is begun as in that for fistula, by making incisions along the direction of the chief muscular fibres on each side of the opening down to the sub-peritoneal tissue. The

length of the incisions will vary according to the thickness of the parietes, but will not be shorter than two inches on each side of the anus. The knife is carried round the gut adherent to the parietes, liberating it thoroughly. The peritoneum, with its areolar tissue, is separated from the overlying muscle all round over a circle of two inches radius or more. The bowel,

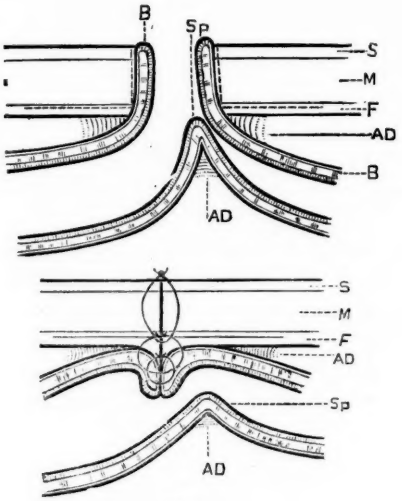

FIG. 3.

Diagrams to show method of Closure of Artificial Anus.

B. Bowel. Sp. Spur. S. Skin. M. Muscular layer.
F. Sub-peritoneal fascia.
AD. Adhesions between bowel and peritoneum and between peritoneal surfaces of spur.
Broken line in upper diagram shows incisions around gut forming anus, and in sub-peritoneal areolar tissue. Lower diagram shows sutures in place, and operation finished.

with its adherent parietal peritoneum, is then delivered through the peritoneum. All superfluous pieces of tissue are removed, and the gut is ready for suture.

Usually union is best made transversely. If there has been resection of gut, transverse suturing is essential. If there has been only incision of bowel, as in colostomy or enterostomy, suture may be longitudinal; but even here it is perhaps best done transversely. I have succeeded equally well by each method.

Sutures are carefully placed by the Lembert method from behind forwards. Particular care is given to the deep suturing. A good hold of the tissues is taken, and each stitch must bring about accurate apposition. A single or double row of sutures is placed over the deep row, and here also perfect closure, without undue compression, must be secured. Tension may be avoided by complete liberation of the bowel from surrounding adhesions, and by further stripping of parietal peritoneum. The gut is closed exactly as in enterorraphy by Lembert's method inside the peritoneum; only there being more available tissue for union a more extensive grip is taken by each suture.

The wound in the bowel is cleansed; and the whole is pushed inside the cavity. The parietal wound is closed as before. A drainage tube placed over the line of intestinal suture will guard against infiltration if there is leakage. In one case (after resection) where there was leakage (caused possibly by constant vomiting for many hours from the anæsthetic) the fistula spontaneously closed without much trouble.

In conclusion, I may add that the operation, safe and satisfactory as it is to the patient, is not a very easy one for the surgeon. The most important detail is liberation of the gut by detachment of the parietal peritoneum. If detachment is well begun at the distal ends of the incisions, and the plane of separation is followed up to the very margin of the fistula or anus, the operation is much simplified. In my first operations I began the detachment from the edges of the fistula; this is not so easy, and may lead to opening of the cavity. Free detachment of parietal peritoneum, with accurate suturing of the bowel, are the most important elements of success.

MODERN SURGICAL TECHNIQUE.

Dr. H. O. Marcy (*Medical Record*, March 2, 1895), says that almost unconsciously we are led to think of modern surgical technique as an *art* rather than a *science*. Let us so accept it. Based upon scientific principles, the work should be artistic; a blundering surgeon may be aseptic, but this should never be an excuse for clumsiness. The true surgeon is skilful, which term means so much, full of that skill which makes his work really correctly automatic. Anæsthesia and asepsis have brought into surgery a small army of men who lack the training which, half a century ago, was considered absolutely essential to success. The greatest danger to-day lies in the willing, enthusiastic recruits with which our ranks are overcrowded.

CYSTOTOMY FOR BLADDER TUMOURS OF DOUBTFUL MALIGNANCY.

BY

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THE surgeon of the present day has a most difficult task in deciding whether a tumour of the bladder is a malignant or an innocent growth, and the following case will show how impossible it is to decide this question even when the bladder has been incised and the tumour removed.

W. H., aged 41, came under my care on July 23rd, 1894: there was no family history of any of the hereditary diseases; the patient had had no previous illness; for about a year and a half he had noticed a frequent desire to pass water, and for a little over a year he had noticed that a drop or two of blood-stained urine often appeared at the meatus after difficult micturition; this was accompanied by some slight pain in the penis, lasting only a few minutes. The frequency of the passage of blood gradually increased, and the pain steadily became worse up to July 15th, when the bladder was sounded; this caused very free hemorrhage, and since that date there has been always a large amount of blood passed, mixed with the urine, and always some free bleeding through the urethra after micturition. On July 23rd there was marked difficulty in forcing the urine out of the bladder, and this could be done only in very small quantities at frequent intervals.

On examining the abdomen, the bladder could be felt as a hard rounded mass, reaching about one and a half inches above the pubes, and the finger in the rectum made out what felt like a hard nodular mass involving the whole of the base of the bladder: a sound was with difficulty introduced into the bladder, when it appeared evident that the cavity was almost completely filled with a growth; no stone or phosphatic deposit was detected.

The inguinal glands were enlarged on both sides.

On July 26th, with the patient under ether, I was able to inject about 4 oz. of warm boracic lotion into the bladder; I then performed supra-pubic cystotomy, making a free incision into the bladder; the finger in the bladder could feel a mass of solid, easily broken-down material, adherent to the whole of the anterior wall as well as to the base. The growth was removed

freely with a Barker's flushing scoop, leaving what felt like a hard and thickened ulcerating surface involving the whole of the front and lower walls of the bladder; a large india-rubber tube was fixed in the bladder by a suture, and the upper edges of the abdominal wound were brought together with a single stitch.

There was excessive hemorrhage during the whole of the time the operation lasted, and no view of the mucous membrane of the bladder could be obtained, although the opening was a free one.

For the first twenty-four hours there was continuous bleeding from both wound and urethra; in thirty-six hours this was rapidly decreasing in quantity; six days after the operation there was only a trace of blood in the urine, which was still coming freely through the tube above the pubes; seven days later, a smaller tube was introduced into the bladder—about half the urine was at this time being passed *per urethram;* all bleeding had entirely ceased.

Three weeks after the operation the drainage-tube was removed, and shortly after this the opening in the bladder closed.

Patient went home apparently cured on August 31st, when he was passing normal urine about six times during the twenty-four hours.

The portions of growth removed, when heaped together, about equalled in size the half of the man's fist; microscopic examination showed it to be a fibro-papilloma.

Feb. 23rd, 1895. It is now seven months since the operation: the man is in perfect health, and has passed normal urine without pain or difficulty ever since going home; on examining the bladder with a sound, nothing abnormal can be made out, and the examination causes no blood to appear in the urine; with the finger in the rectum, no thickening can be felt at the base of the bladder.

This was a case that appeared to be malignant both before and during the operation; in fact, when the patient was sent back to bed it was much to be feared that the growth had not been entirely removed, as the thickened walls in front and below were left in what seemed to be a ragged ulcerating condition.

Surgeons have until quite recently been most reluctant to attempt to remove a growth from the bladder that was thought to be malignant; but even in those cases of sarcoma and carcinoma involving the bladder only, I have noticed a very marked improvement in the cases in which free curetting has been practised. The supra-pubic operation of cystotomy is now

performed with such comparative safety, that the great relief of pain and the diminished hemorrhage that so frequently result, fully justify the operation in even apparently hopeless cases. Moreover, there is at present a great difference of opinion concerning the malignancy of bladder tumours; this is clearly shown by the fact that one authority states that of thirty consecutive cases that came under his notice no less than twenty-six were innocent; while in another consecutive set of twelve cases occurring in hospital, ten were malignant!

I am of opinion that if nearly all cases of tumour of the bladder were operated upon, a vast amount of pain and distress would be saved and a far larger number of cases would be cured.

THE ADMINISTRATION OF NITROUS OXIDE AS A PRELIMINARY TO ETHER ANÆSTHESIA.

BY

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As long ago as 1876, Clover described how before ether anæsthesia it was advisable to administer nitrous oxide; so that were it not for the neglect of this valuable suggestion, I should feel that an apology was required for bringing up such a hackneyed question. All the unpleasant sensations experienced during the early stages of ether anæsthesia may be avoided by giving a small quantity of nitrous oxide first.

First of all, I wish to express my regret that chloroform is still so largely used, when we have a far safer and an equally satisfactory anæsthetic in ether. As far as I can judge, the causes for its almost universal use—certainly in country practice—are, that its administration requires no expensive, more or less complicated apparatus, and that its use is far more economical. But when we bear in mind the not inconsiderable risk attendant

on all cases of chloroform anæsthesia, I am convinced that its use should be restricted to those cases in which ether, for some particular reason, is to be discarded. There must be, in all cases of anæsthesia sufficiently profound for surgical operations, a certain amount of risk; but we may always feel when administering ether that when once sufficiently deep narcosis has been produced, timely warning will be given of any dangerous condition; whereas with chloroform, patients not infrequently pass to a more or less dangerous stage with great and unexpected suddenness. Whether or not we hold, with the Hyderabad Commission, that cardiac failure in chloroform anæsthesia is only secondary to respiratory failure matters little in comparing the relative safety of ether and chloroform, for there appears to be no serious risk of either when ether is given.

Without wishing to raise the whole question of the choice of anæsthetics, the best methods of administering them, and their relative safety or danger, I must say I believe that a large number of the fatalities from anæsthetics are due to inexperience, or perhaps primary want of knowledge, on the part of the anæsthetist; or want of attention during the operation to the patient's condition. Experience should be gained during the time of student life, and should not, as is the usual custom, be postponed till the qualifications to practise are obtained. Plenty of opportunities are given at the hospitals attached to medical schools for students to learn how to give anæsthetics, but they are much too often neglected for the superior attractions of the operation. Theoretical knowledge of administration, though not so useful, is of no mean value; but few of our medical schools include a course of instruction in anæsthetics in their syllabus, and I have never heard of a question on the subject being asked in any examination. The anæsthetist should be wholly engaged in giving the anæsthetic, and should pay no more attention to the operation and doings of the surgeon than to see that his patient is sufficiently under to render the operation possible without movement or pain.

Now to the point to which I wish specially to call attention. Those who have had the misfortune to have taken ether will know that the inhalation of the vapour is not altogether pleasing.

The odour is pungent, and the taste burning and most unpleasant; and it is impossible, even when given by the most skilled hands, to avoid these disagreeable sensations. When, however, nitrous oxide is given in the manner I shall presently mention, all this unpleasantness is lost: further, there is neither struggling nor cough; in fact, the patient passes from the far from unpleasant sensations of nitrous oxide anæsthesia to ether narcosis quite insensibly and quietly. I have had nitrous oxide administered to me more than once, and can assure those who have never experienced it that, beyond a peculiar sweet taste and a tendency to take deeper respirations than usual, the sensation is on the whole pleasurable. In administering gas before ether, only sufficient of the former anæsthetic is given to render the patient partially insensible—only till the sensation of lightness of the head is induced; and though I am not prepared to say that any anæsthesia of the air passages is produced, practical experience teaches that after a few—six or eight—respirations the irritating effect of the ether on the mucous membrane of the respiratory tract is not observed. On the last occasion on which I took nitrous oxide I attempted to count the number of respirations I took before I became insensible, and on recovery found I only remembered taking twelve. No doubt I should have felt the pain of the tooth extraction if it had taken place then; but this shows how soon loss of consciousness comes on.

The apparatus I use is Hewitt's modification of Clover's ether inhaler: others are in use, but I find this answers its purpose well, and I shall continue to use it till one evidently superior is introduced. The gas-bag, previously filled with nitrous oxide, is fitted on to the dome which has been warmed and supplied with ether. All the fittings of the apparatus should be so accurately made that there is no leakage of gas or ether; so that when the gas is turned on, no taste of ether vapour is noticed. The valves are so arranged that respiration of air alone is allowed at first, by which the patient gets accustomed to the face-piece and can be induced to breathe properly—a thing often not done at first,—and the anæsthetist can hear that the valves are working properly. After a few

respirations the gas is turned on, and is drawn from the bag to the patient's lungs and expired through the valves. About six respirations in this way are permitted, when the valve arrangement is turned off, so that respirations now pass from and to the bag, and at the same time a small turn is given to the ether dome. In a short time signs of slight nitrous oxide narcosis are noticed, but should not be allowed to proceed too far. There should not be much lividity; but should it become marked, a single breath of air causes it to disappear. Meanwhile the ether has been turned on till now it is nearly at full, and in a short time the patient is ready. The great difficulty to avoid is, allowing the patient to come round between the gas and ether narcosis—a thing very easily done if too much air is admitted. Only experience can teach the anæsthetist how much, and when, air should be given. Deep nitrous oxide anæsthesia is not desired or required. It will be found that two gallons of gas is about the amount required; but each patient has a personal equation both for nitrous oxide and for ether, and the anæsthetist has to find it out by careful and cautious observation. I believe by this method of administration after-vomiting is less frequent. But much, too, depends on keeping the patient equably under the anæsthetic at the time of the operation. There should be deep anæsthesia at first, especially if the operation is on a sensitive part, but much lighter anæsthesia is sufficient subsequently; but it must be maintained equably, or as equably as is possible.

To those who have no experience of this method, I can confidently recommend it as by far the simplest both for the patient and the administrator; and if comfort is concerned, I can unhesitatingly say that it is the best yet devised.

THE BLOOD-ALTERATIONS OF ETHER-ANÆSTHESIA.

Dr. J. C. Da Costa (*Medical News*, March 2, 1895) considers that in ether-anæsthesia the cause of the anæsthetic state is not merely the direct action of ether upon the nerve-elements, but that it involves likewise an alteration in the composition of the blood. He says that diminution in hæmoglobin is constant after the inhalation of ether, that ether-pneumonia may possibly be due to the action of intense cold upon the lungs, produced by the action of ether-vapour, that prolonged anæsthesia profoundly deteriorates the blood and strongly militates against recovery, and that hence rapidity of operation is most desirable.

SOME CLINICAL NOTES ON MEMBRANOUS ENTERITIS.

BY

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I PROPOSE in this paper to give a short clinical history of a few cases of membranous enteritis that have come under my care during the last few years.

Sincerely do I wish that my limited experience enabled me to advocate any form of treatment likely to benefit those suffering from this very intractable complaint; but after trying many and various drugs by mouth, and medicated enemata by the bowel, I am most unwillingly bound to confess that as yet I have not found any remedy effect a permanent cure. In some few cases the patient improved for a time while under treatment, but as in almost every instance the trouble appeared again after a very short interval, and as, moreover, the patients had experienced this same freedom from symptom without undergoing any treatment at all, I was forced to the conclusion that we have not yet discovered any effectual treatment for this disease.

Mrs. M., aged 60. A very thin, ill-nourished woman, of melancholy temperament. She has always had wretched health, and at the present time has marked signs of pulmonary phthisis. For many years she has suffered, at short intervals, from attacks of acute dyspepsia, accompanied by very obstinate constipation; and at these times she experiences great pain in the abdomen.

When I was called in to see her, I found her suffering great pain in the abdomen. She was sitting up in bed rocking to and fro, and pressing her abdomen as firmly as she could against her thighs, as in that position she obtained most relief from the pain. She was also in great mental distress, as she was fully convinced that the membranes she was passing in great quantity were the "lining walls of her bowels," and I doubt whether, in spite of my earnest assurance, she was at all convinced to the contrary. She was looking miserably ill, and was moaning with pain.

The abdomen was not at all distended, and I found nothing abnormal present. Pressure relieved the pain, and there was but little tenderness. When the bowels acted the pain was much increased, and was followed by great straining after the membranes had been ejected. A little bright blood was passed, the source of which was doubtful. She did not suffer from piles.

On examining the motions they were found to consist of hard round fæcal lumps, with strips of white membrane wrapped round them. There were also present bits of membrane of various sizes, the largest measuring about six or seven inches long by three to four inches wide. The membrane itself presented a firm opaque-white structure, like an hydatid cyst-wall. These membranes dissolved in water after being left standing in it for some hours, leaving the water slightly turbid. Besides the membranes, the patient passed at times big lumps of mucus in semi-solid masses.

After a week or ten days the symptom disappeared, and she returned to her usual weakly state of health.

The treatment of this case was at first limited to relief of pain by opium, which I was obliged to give in small doses to enable her to obtain ease, and relieve pain caused by eating. Other drugs by mouth failed to do any good at all.

Mrs. R., aged 47. An energetic woman, of active habits; fairly well nourished; naturally of a bright disposition. She has suffered from obstinate constipation for many years; and from time to time has passed mucus by the bowel, with hard lumps of fæcal matter. For six months she has been more or less confined to her bed through a serious injury to her knee, and during this period she has passed mucus more frequently and has suffered from prolonged attacks of acute dyspepsia.

At the present time (July, 1892) she has symptoms of extreme tenderness of the mucous membrane of most of the alimentary canal. On swallowing food at all hot she experiences pain all down the œsophagus, which is worst at the cardiac orifice as the food enters the stomach. The pain in the stomach is almost constant, and there is great tenderness over it at the epigastrium on pressure. The pain in the abdomen is also almost constant, and is so severe as to keep her awake at night. When the bowels are moved the pain is much aggravated, and seems to pass along the line of the colon down the rectum. At such times too there is some tenderness in the region of the colon. There is no particular distension of the abdomen; and nothing abnormal can be felt in it either by external palpation or *per rectum*.

To obtain some relief from the pain, she sat up in bed with the knees up to her chin, pressing the abdomen against her thighs. This attack lasted six weeks, and during the whole of that time there was most obstinate constipation, so that enemas and purgatives were always required in order to obtain any

action at all. For more than a fortnight there was so much pain on eating, accompanied by vomiting, that nutrient suppositories by rectum had to be administered, while only a very limited supply of food by mouth was given. Hot food, spirits or champagne could not be taken, as they caused so much burning pain immediately on being swallowed.

During this time I was compelled to give her small doses of opium in pill form, some fifteen minutes before food, to act as a local sedative to the stomach, as otherwise the taking of even the smallest amount of food was promptly followed by severe pain and vomiting.

This attack lasted altogether about six weeks, when the symptoms began to improve very slowly—the pain went, the mucus grew less in amount, and the bowels began to act naturally again, so that for a time they acted regularly every day without any assistance being required from either purgatives or enemata.

Strange to say, the patient lost very little flesh during this illness; and neither her heart, lungs nor kidneys showed any signs of disease. I may mention that she had choroiditis in both eyes.

The treatment of this patient was undertaken very thoroughly—I may even say heroically, as she was a woman of great pluck and perseverance and followed up any line of treatment I suggested with great determination. In spite, however, of the best endeavour on the part of both doctor and patient, I am sorry to say that though at times I thought certain drugs produced good effect, still they all failed to do good after a short time, and the patient's condition remained *in statu quo*. By the mouth I gave nitrate of silver pills, potassium iodide, arsenic, and other remedies as charcoal, and various antiseptics as benzo-naphthol, without avail. By the rectum I administered, by enema, tannic acid, boracic acid, in solution; also a lotion of salicylate of bismuth and opium. In order to give the rectal lotion a chance of coming into contact with the mucous membrane, I adopted the plan of washing out the bowel very thoroughly with hot water before passing the lotion up. The patient lay in bed with the buttocks raised high by pillows under them. The hot water, to the extent of nearly two gallons, was then gently passed up through a tube from a vessel suspended some three feet above the patient. When the water was returned free from mucus, the medicated lotion was thrown up and left for some two or three hours, the patient remaining with buttocks raised during that time. This very irksome treatment was persevered in for over a fortnight, at first every day and then every other day, but failed to reduce the amount of mucus passed. On the morning following a thorough emptying of the bowels from mucus by this treatment, there was passed as much mucus as ever—on some days enough being passed to half-fill a big chamber-pot. Finding active treatment do no good, I finally

treated the symptoms of pain and constipation, and after some weeks the patient slowly improved as stated above.

Soon after this attack she went elsewhere to live, and at my request, a few days ago, she wrote the following account of herself. Her general health has been better, and she suffers less from constipation. Every month however, and sometimes oftener, she has an attack of the same kind. There is always sickness, pain and tenderness. Abundant mucus is passed, sometimes tinged with blood. The motions are then passed in hard lumps. Any mental worry always brings on an attack.

The next case is almost identical with the last. I give it briefly.

Miss C., aged 40, July, 1894. An unhealthy-looking woman; fairly well nourished. Always subject to constipation and piles, and at times has acute attacks of dyspepsia. These attacks are always accompanied by great pain and tenderness in abdomen, and vomiting. At times she has brought up coffee-ground vomit, due to the presence of blood. At present she is suffering from very great pain in the abdomen, which is much swollen and tender to pressure. She is unable to wear her corsets, owing to the tenderness. Pain is worst along line of left colon. Eating brings on the pain at once, and is often followed by vomiting. Constipation is very troublesome. She is passing hard lumps of fæces and much mucus and membranes, with streaks of blood. She is using large quantities of hot water every day to obtain an action—as much as two or three pints at a time.

The treatment was directed to improving her general health, owing to very considerable indiscretion in her diet and general manner of living. I was enabled to improve her health; but the mucus continued to pass, and still continues to the present time, when she wrote a few days ago to tell me of her progress.

One more case I will mention, as being different from the others.

In this case the complaint occurred in a little girl of seven years of age while suffering from some slight ailment. The nurse told me one morning that the child was passing "worms." I examined the so-called "worms," and found they were membranes or casts from the bowel. These casts were passed on three or four occasions only, and during that time there was no constipation or diarrhœa. The child did not complain of any pain or tenderness in the abdomen at any time. Since then, now two years, she has not passed any more membranes, and her health has been good.

In discussing and analysing these cases, I would direct attention chiefly to the following points:

It is apparently a complaint which does not yield to treatment in the majority of cases. It may improve while the patient is under treatment, but it also improves for a time without any treatment at all.

It is not a fatal complaint. People may have it for years and pass vast quantities of mucus, and yet look fairly well at the end of that time.

It often improves temporarily, and then returns after a short or long interval. In some cases it recurs at regular times, and continues to do so every month or so for years.

It almost always occurs in dyspeptic and somewhat neurotic patients.

It is essentially a disease which is affected by the mental state of the patient. In some cases worry always brings on an attack, while freedom from care is almost essential to its cure.

THE BACTERIOSCOPIC DIAGNOSIS OF DIPHTHERIA.

BY

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THE positive detection of any specific micro-organism depends: first, upon the possession of thoroughly trustworthy methods of separation from other schizomycetes; and secondly, on a knowledge of the characteristic features, both cultural and morphological, by means of which the microbe under observation may be satisfactorily identified when isolated.

In the case of the Klebs-Loeffler bacillus, the mode of separation and the behaviour under cultivation are so intimately connected, that it will be convenient for the present purpose to

consider them together after reviewing the morphological features.

Morphological Character of the Diphtheria Bacillus. — When observed in cover-glass preparations of exudate, this organism appears as a typical bacillus, the length considerably exceeding the breadth, which under the usual conditions of staining is about 0.7 μ. The rods are straight or slightly bent, do not grow into threads, but are frequently aggregated in knots or skeins embedded in mucous bands, which take a light stain. (Fig. 1.) It is quite rare in the early stages of the disease, during which the material is or should be submitted to examination, to find the bacilli otherwise than uniform in diameter and evenly stained; and any attempt to recognise the special appearance described as characteristic of the bacillus will probably result in disappointment.

In later stages this uniformity of appearance is lost in a greater or less degree, and rods may be found approximating in appearance to those grown on artificial media; and in *post-mortem* sections, when the death of the patient has ensued at some considerable time subsequent to the attack, this similarity may be very complete.

So commonplace is the aspect of the bacilli in the exudate, that it is only when they are unusually abundant that it is possible to distinguish them with any degree of certainty from very similar organisms which occur in non-specific affections of the throat; and then it is rather the mode of aggregation than the microscopic appearance that guides the observer.

It will generally be observed that numerous other organisms, especially forms of coccus, accompany the diphtheria bacillus; but the former are almost always thronging around epithelial cells and similar *débris*, and are not so distinctly embedded in the mucous threads.

The bacilli are readily stained by the usual simple stains, but are somewhat more readily decolorised by washing than is the case with other organisms. Gram's method also gives excellent results, especially in sections.

The above description applies almost precisely to the bacillus grown in peptone broth at blood temperature; but here

there is not infrequently some irregularity of form, chiefly in the shape of enlarged extremities. It is, however, when grown on solid media, and especially on blood-serum, that it develops its most striking morphological characteristics. Rods from young growths (twenty-four hours) present very densely-stained spherical bodies, one of which is generally situated at either extremity, whilst others are placed at intervals in the length of the bacillus: the diameter is apparently increased at such spots, especially at the ends, the intervening portions being narrower and comparatively faintly stained; a very characteristic appearance is that of a faintly-stained prolongation of the bacillus terminated by one of the deeply-stained granules. (Fig. 2.) These appearances are best brought out by staining with methylene blue dissolved in weak alkali (.01 per cent. caustic potash), or in five per cent. carbolic acid, or by Gram's method; but the enlarged extremities are particularly conspicuous in fuchsine-stained preparations. In older cultures the differentiation becomes more and more marked, until it requires close observation to detect the intermediate portions of the bacillus, the granules appearing as blue-black points connected by faint bluish bonds. The whole appearance is now suggestive of a streptococcus, the chief distinction being the interval between adjacent granules. (Fig. 3.) Well-marked varieties as regards length are found in cultures from different cases, and are apparently constant; but I have not found the same difference in the exudates from which the cultures were made.

Cultural Characters of the Diphtheria Bacillus.—This organism requires for its active growth a temperature of 30° C. and upwards, flourishing best at about 37° C. It grows luxuriantly in the ordinary alkaline peptone broth, the reaction of which it modifies in a most peculiar way. The broth becomes progressively acid up to about forty-eight hours, after which the action is reversed, until at the end of a week the culture is strongly alkaline. This change is well shown by the addition of an indicator to the broth: for this purpose, litmus purified by precipitation with alcohol is excellently adapted.

Of the solid media, gelatine is the least satisfactory, owing

FIG. 1.

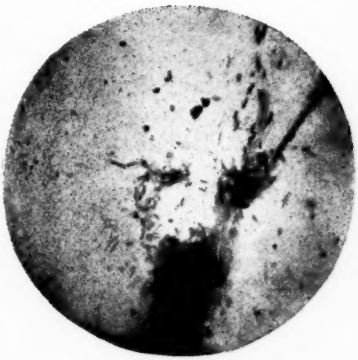

FIG. 2.

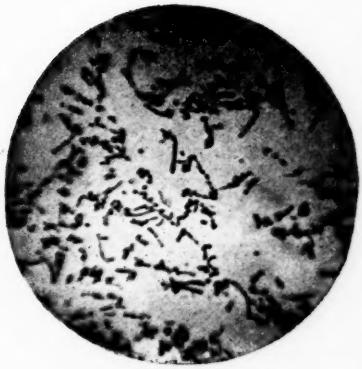

FIG. 3.

FIG. 4.

FIG. 1. *Diphtheria Bacillus in Exudate.*
FIG. 2. *Diphtheria Bacillus (young culture) on Loeffler's medium.*
FIG. 3. *Diphtheria Bacillus (old culture) on Loeffler's medium.*
FIG. 4. *Pseudo-Diphtheritic Bacillus on Loeffler's medium.*

to its low melting-point; on agar and glycerine agar also the growth is very slow, though characteristic in appearance. Blood-serum, however, especially as modified by Loeffler—that is, with the addition of one-third glucose broth,—is excellent, the growth not only being copious in less than twenty-four hours, but anticipating that of many foreign organisms, whilst the protoplasmic differentiation is strongly accentuated. It should be noted that a very practical improvement in the preparation of serum media was effected by the recognition of the fact that there is little or no advantage to be gained by securing transparency: the method of slow sterilisation formerly adopted is therefore superseded by the usual form of steam sterilisation, whereby much time and trouble are saved.

On the Loeffler medium, kept at 37° C., colonies make their appearance within twenty-four hours after inoculation as small, moist-looking elevations, more or less discrete according to the amount of material introduced. They slowly increase in size for a few days, but never attain a greater diameter than about 2 mm., and frequently remain much smaller; as they become older they dry somewhat, the centre becoming acuminate, and radiating ridges make their appearance. In favourable cases no other colonies result from inoculation with exudate, even when the latter contains many species of organisms; and it has been stated that this particular medium is so suited to the requirements of the diphtheria bacillus, that any colonies making their appearance within twelve to twenty hours must consist of this organism, and no other. This is hardly correct; for not infrequently colonies of cocci, and occasionally of yeasts, grow concurrently with the diphtheria bacillus, and so far resemble the latter that microscopic observation is necessary to discriminate between them. To this end, it is very desirable that the amount of material used for inoculation be not so large as to crowd the colonies, a result which generally follows the direct use of the swab. Hence it appears desirable to inoculate with a platinum loop rubbed over the swab, and then used for two or three tubes in succession. Both methods of procedure have been followed in each case examined by me, and in every case the bacillus was as readily detected when

the inoculation was effected by the needle as by the usual method, whilst the ease with which particular colonies could be selected was of course far greater.

At the same time, it is true that most of the mouth bacteria, especially those which morphologically resemble the diphtheria bacillus, are eliminated by this method of culture. The change of reaction may be followed, as in the case of broth, by staining the medium with litmus; and a most interesting appearance is presented at the stage at which the red colonies are contrasted with the as yet unaltered blue background of medium. Sub-cultures may now be made on the other media in confirmation; but in the very large majority of cases the procedure so far described is quite sufficient to determine the presence of the diphtheria bacillus, as no other known organism conforms in every respect to the description given.

It is necessary, however, to refer briefly to the so-called pseudo-diphtheritic bacillus.

The Pseudo-Diphtheritic Bacillus.—At least two distinct organisms have been included under this name. One is in every respect similar to that already described, except that it is not virulent for animals; the other, an organism presenting such points of resemblance as to necessitate a careful examination, but at the same time capable of being sharply distinguished.

The former is almost certainly merely an attenuated form of the diphtheria bacillus, such as is known to be produced under circumstances not entirely favourable to its growth, and does not need further description.

The latter, however, is an interesting organism occasionally found in morbid throats. It has occurred only once in my experience, and presents the following distinctive features: The growth on Loeffler's medium is not unlike that of the true bacillus, but rather more abundant and confluent; on agar and gelatine it grows luxuriantly at ordinary temperatures; in broth it also grows well, but acidifies less rapidly and intensely, and does not present the subsequent reverse action; microscopically it exhibits differentiation of the protoplasm somewhat similar to that of the true bacillus, but although in each field there are

individuals of which it could not be said from their appearance that they were not Klebs-Loeffler bacilli, very many taper uniformly from end to end, resembling in outline a Florence flask rather than a knotted stick. These almost always occur in pairs side by side, of which one individual is larger than the other. (Fig. 4.)

Thus the resemblance between the true and false bacilli is rather superficial, and should not confuse a careful observer.

It may be worth while to note that the rarity of its occurrence shows pretty clearly that the pseudo-diphtheritic bacillus bears no causal relation to the condition known as pseudo-diphtheria, and it would be conducive to a clearer understanding if both names were allowed to lapse.

Practical Results.—I have examined twenty-one cases, none of which were treated with serum, and the results were briefly as follows:

Diphtheria bacillus found in	12
Long variety occurred in	7
Short „ „	5
Fatal cases—Long variety	5
„ Short „	1

The proportion of cases in which the bacillus was found is somewhat lower than has been recorded by others; but this is in part due to the inclusion of some which would probably not have been definitely diagnosed as diphtheria on clinical grounds. With reference to the influence of the variety of bacillus present, I have to add to the figures given above that one of the two cases exhibiting the long variety in which recovery took place was exceedingly severe, and required the performance of tracheotomy: these cases, therefore, so far at least as is possible with so limited a number, support the distinction drawn by Dr. Washbourn and others between the long and short varieties as regards virulence.

I am unable to throw any light upon the question of mixed infection: it appears, however, that a more minute investigation requires to be made into the nature of the other organisms present in the exudate, but not appearing on the culture tubes.

Several of the above cases were examined more than once, and the description and proportion of accompanying organisms varied exceedingly at different dates.

A considerable number of normal and other throats have been examined in addition to the above, but in no case was any organism discovered at all resembling the diphtheria bacillus, except in one instance when the pseudo-diphtheritic bacillus above described was found.

I conclude, therefore, that bacterioscopic examination constitutes a practical and rapid method of discrimination between cases of throat affection which are, and those which are not, due to the attack of the diphtheria bacillus; and that it affords information of so much value, quite apart from indications as to treatment, as to justify its systematic application.

Progress of the Medical Sciences.

MEDICINE.

Diphtheria continues to hold the most prominent place in medical literature; but as those interested in the advance of medicine have no doubt followed the leading facts, recapitulation is not needed here.

Reference may, however, be made to one point; namely, the question whether the curative action of antitoxin is in any way counterbalanced by deleterious effects in certain cases. Numerous instances of erythema are recorded, but they are not of serious nature. Mr. Lennox Browne, however, has suggested that the antitoxin sets up nephritis, which may lead to the death of the patient by anuria. Dr. Goodall, in reply to this suggestion, has pointed out that anuria is not uncommon in cases of diphtheria untreated by antitoxin, and that this complication belongs therefore to the disease and not to the treatment[1]. He supports this answer by publishing a paper giving details of several cases[2]. Dr. Goodall in that paper states that although anuria is present, there is generally little if any nephritis. The suppression of urine is therefore difficult of explanation.

One other point, brought forward by Dr. Sydney Phillips

[1] *Brit. M. J.*, 1894, vol. ii., p. 1485. [2] *Lancet*, 1895, vol. i., p. 269.

at a recent meeting of the Clinical Society, may be mentioned.[1] Dr. Phillips stated that the liability to cardiac failure during convalescence from diphtheria must be remembered when statistics of cures from antitoxin treatment are published. It is not probable that many cases treated with antitoxin will die of cardiac failure after they have left the hospitals or have passed out of the hands of their medical attendants; but it is well to bear in mind that sudden death from this cause may occur when the patient is supposed to be returning to perfect health. Antitoxin may have the power of arresting the disease, but it cannot repair any organic change that may have taken place in the heart-muscle before the treatment is commenced. This fact is a plea for the early employment of antitoxin. The common cause of death in diphtheria, whether it occurs early or late, is cardiac failure; and to preserve the heart from the poisons of diphtheria, the treatment ought to be commenced in the first forty-eight hours.

Since, however, antitoxin may not always be at hand, a preparation suggested by Loeffler, which comes before the medical world with the weight of his authority, is worthy of consideration. As is well known, the diphtheria bacilli multiply superficially in the membrane and do not enter the blood, poisons probably of the nature of ferments being absorbed. It follows that if the bacilli could be destroyed *in situ*, the entrance of fresh poisons would be at once arrested. At such a result Loeffler aims, and while not wishing to put his method before treatment by antitoxins, considers that it may be a useful adjunct. The preparation is as follows: Toluol ʒj., alcohol ʒij., liq. ferri perchlor. ʒj.; to which is added 10 per cent. of menthol, to relieve the pain of application. It is applied every three hours.[2]

* * * *

Another question that has exercised the medical mind has been the possibility of infection with typhoid fever by eating oysters. In the *British Medical Journal* of January 12th, Sir William Broadbent gave brief notes of several cases in which he considered that infection was derived from this source; and in the *Journal* of the same week some exceedingly interesting, and one would think conclusive, facts are referred to in a leading article. It is not necessary to repeat them in full here, but briefly stated the following are the main points: Several students of a university in Connecticut, who had combined themselves into fraternities, were attacked with typhoid fever. Only the members of the fraternities suffered, and it was discovered that they had partaken of supper in which oysters formed one of the articles of diet. The matter was traced further, and it was found that the oysters had been deposited for a few days in a river close to the mouth of a private sewer.

[1] *Brit. M. J.*, 1895, vol. i., p. 252. [2] *Med. Week*, vol. ii., 1894, p. 449.

This sewer was connected with a house in which a lady and her daughter had recently suffered from typhoid fever.

* * * *

Dr. Percy Kidd[1] records a case in which paracentesis of the pericardium appeared to act beneficially. After the second aspiration, when twenty-eight ounces of fluid were removed, the good effect of relieving pressure upon the heart was shown by increase in the amount of urine and by the dyspnœa being less marked. The case was brought before the Medical Society of London, where Dr. Sansom and other speakers[2] showed that they were not very favourable to the operation. Dr. Sansom drew attention to the fact that it must be remembered that death in pericarditis with effusion is not, in all probability, brought about by the pressure of fluid upon the heart. The effusion is merely the evidence of a serious heart-affection that kills only too often without the presence of any fluid. While Dr. Sansom and others seemed to doubt the value of paracentesis in the effusion of acute or sub-acute pericarditis, there is one condition to which they did not refer upon which we should have liked to have heard an expression of opinion. A large chronic effusion may sometimes be met with in the pericardial cavity: an effusion so extensive that it would be impossible to mistake it for enlargement of the heart, while careful marking-out of the area of dulness would distinguish it from a pleural effusion. Unfortunately such an effusion is most common in the later stages of chronic kidney disease, when permanent recovery or even prolonged improvement is almost hopeless; yet the danger of aspiration must be so small and the probability of giving relief so great, that one would think it cannot but be advisable.

More interesting than the case of Dr. Percy Kidd is one published by Dr. A. T. Sloan.[3] The heart, instead of the pericardial cavity, was accidentally tapped, to which accident the patient apparently owed her life. A young lady, aged 19, was attacked with pericarditis while suffering from rheumatism. She became seriously ill, and Dr. Byrom Bramwell was called in consultation. Effusion was thought to be present, and as her condition gradually grew worse Dr. Sloan wished to aspirate. The friends, however, objected and desired the opinion of Dr. Bramwell. While Dr. Bramwell was being sent for, the respiration and pulse suddenly ceased. Dr. Sloan somewhat excitedly plunged the aspirating needle in the 4th left interspace, close to the sternum; but instead of fluid, eight to ten ounces of blood flowed into the bottle. While Dr. Sloan was naturally thinking that all was over he felt a movement of the heart, then a sudden jump, after which it restarted in "the race for life." The pulse became running and uncountable, and the patient delirious and finally maniacal. Dr. Bramwell

[1] *Lancet*, 1895, vol. i., p. 275. [2] *Brit. M. J.*, 1895, vol. i., p. 252.
[3] *Edinb. M. J.*, vol. xl., pt. ii., 1895, p. 673.

arrived. Ether and morphia were injected. The mania became less marked, and in an hour and a half she recovered sufficiently to recognise her mother. From that time the patient slowly improved and regained perfect health. Other cases are referred to by Dr. Sloan in which recovery took place after heart-puncture; and in conclusion he states his belief that in some cases of cardiac failure, such as occur in pneumonia, bronchitis, and some forms of heart disease, abstraction of blood from the right ventricle by means of a morphia syringe might be beneficial.

The heart is a puzzling organ, and in some instances unexpectedly recovers strength when it appears to be on the point of ceasing to beat for ever. As an example, I may mention a case that occurred in Guy's Hospital when I was house physician. A woman, aged about 45, had the orthopnœa, cyanosis, and œdema of legs of chronic cardiac disease. On three occasions about fifty ounces of fluid had been withdrawn from the chest. In the middle of one night I was called to see her. On arriving in the ward, she appeared to be dead; the nurse, an experienced one, said that she was dead. The heart, however, had not quite ceased to beat, and taking out my morphia syringe, I injected from ten to twelve syringefuls of brandy. In the course of half-a-minute to a minute there were signs of renewed cardiac action. From that time the patient steadily improved, and left the hospital. She not only lost the symptoms of cardiac disease, but recovered her energy, and when about the ward was the most ready of the patients to render help to the nurses.

Such cases reveal our want of knowledge of the heart's powers. Experience leads us to believe that all forms of stimulation, whether mechanical or medicinal, will fail to revive a heart that appears to be at the end of a downward career; yet occasionally some development that we consider remarkable disturbs our preconceived notions. In all probability we have very much to learn as regards treatment. Dr. Sloan drew blood from an overloaded heart, and the patient apparently dead recovered. Dr. Leonard Hill[1] shows, on the other hand, that the heart may stop, not from over-distension, but from want of blood. The greater part of the blood of the body may be collected in the splanchnic area, and mechanical expression will possibly restart a failing heart. In the future it may be that we shall have to study the condition of the arteries and veins as carefully as the heart itself, and having studied them, find methods, possibly in the form of external stimuli, to modify their calibre and tension. Attention should be given to Dr. George Oliver's observations[2] upon the variations in the size of the radial artery.

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[1] *Lancet*, 1895, vol. i., p. 338. [2] *Pulse-Gauging*. 1895.

Dr. Ainslie Hollis writes upon the pathology of atheroma. He considers that small-cell infiltration always precedes the degenerative changes, and that the disease is probably microbic in origin.[1] Dr. Hollis has been preceded by Lancereaux in attributing at least one form of atheroma of the aorta to infection from without.[2] Lancereaux speaks of malaria as a cause. The form to which Lancereaux refers is most commonly situated just above the aortic valves, but may occur in well-defined raised patches over a considerable area. This form, which is generally attributed to syphilis, shows small-cell infiltration of the vessel-wall in the early stages. On reading Dr. Hollis's paper, one cannot help thinking that he has failed to differentiate this form from the variety that mainly affects the internal coat. Dr. Hollis found a history of syphilis in only three of fifty-two cases, yet a glance through these cases shows that several are of the nature that Lancereaux attributes to malaria, and that others would consider due to syphilis. On the other hand, it may be remarked that of nine cases noticed in the Guy's Hospital records in which the disease was well marked and of this localised character, five gave *post-mortem* evidence of syphilis or had a history of venereal disease, while only two had been abroad. In one case of severe atheroma just above the valves that recently occurred in the Bristol General Hospital there was also a history of gonorrhœa, which always suggests the possibility of syphilis. The pathology of this form of disease of aorta is of some importance, since its consequences, such as aneurism, aortic regurgitation, and angina pectoris, are so serious. Lancereaux writes on the last-mentioned manifestation—namely, angina pectoris.[3] He considers that the most severe forms of cardiac pain are due to disease of the aorta just above the aortic valves, and says that the nerves of the cardiac plexus running in the sheath of the vessel become affected. In connection with this point, it may be interesting to state that I have recently cut sections of the aorta affected with this form of aortitis. Many of the nerves in the sheath were surrounded by leucocytes. To return, however, to the remarks of Lancereaux, it is satisfactory to learn that, although he attributes the disease of the aorta that gives rise to the pain to malaria, he considers that iodide of potassium is the best remedy. It follows, then, that whether we consider the disease to be due to syphilis or not, it may be well to bear in mind that when a comparatively young or middle-aged man comes under observation complaining of cardiac pain, and on auscultation a high-pitched or somewhat clanging aortic second sound is heard suggesting some dilatation of the aorta just above the valves, iodide of potassium may possibly prove beneficial. In connection with this use of iodide of potassium,

[1] *J. Path. & Bacteriol.*, vol. iii., 1894, p. 1. [2] *Bull. méd.*, 1893. Quoted in *Annual Univ. Med. Sci.*, 1894, vol. i., B—39.
[3] *Arch. gén. de méd.*, Août, 1894.

it is noteworthy that Professor Fraser, of Edinburgh, lays stress upon the value of the drug in cases of aortic valve disease. Aortic valve disease and atheroma of the aorta in the neighbourhood of the valves are often intimately associated, and clinically it may be impossible to say whether the lesion is primarily one of the artery or of the valves. Lancereaux finds iodide of potassium useful in cardiac pain, and Professor Fraser in aortic regurgitation. Possibly they have both been treating manifestations of the same disease.[1]

THEODORE FISHER.

SURGERY.

Of the carcinomata none are more important, from their common occurrence and the distress accompanying them, than cancer of the breast. While able and patient investigators in all countries are seeking the real cause of their origin, in the hope of throwing new light on the means of successfully treating them, their labours have not as yet enabled them to do so, and surgeons are left face to face with the old problem—how best to secure a complete removal of the primary tumour at an early date: for the controversy of the local and the constitutional origin of carcinomata is more and more dying out in favour of the former's claims. The local origin of cancer means then for most surgeons, that what they have most earnestly to seek is that method of operation which promises the best chance of removing the whole primary growth (not only as it appears visibly, but in its many invisible offshoots), as being at present the only practicable method of ridding the patient of her disease. In a paper delivered before the Harveian Society of London,[2] Mr. Watson Cheyne referred to certain investigations which explain some of the causes of the failure in the method of operation which was in general practice some years ago. Their value lies in enlarging our interpretation of what is a complete extirpation of the primary growth, and, as closely bound up with this, our knowledge of the possible routes of dissemination. As long ago as 1889, Heidenhain[3] pointed out the importance of the pectoral fascia, demonstrating that it is often involved in the cancerous process, even when the overlying breast is not adherent to it, and strongly advised its complete dissection off the pectoral muscle in all cases. The lymphatics of the breast (according to Sappey) converge to the nipple, and, after leaving this, form a sub-areolar network from which three or four trunks pass to the axillary glands. But it has also been found that lymphatics pass from outlying lobules and the deeper surface of the breast to the lymphatic network which lies in the pectoral fascia and on the surface of muscle immediately subjacent; and, further, that lymphatics pass from the sternal edge of the breast

[1] *Brit. M. J.*, 1895, vol. i., p. 368. [2] *Brit. M. J.*, 1894, vol. i., p. 289.
[3] *Verhandl. d. deutsch. Gesellsch. f. Chir.*, xviii., pt. 2, 1889, p. 1, and *Arch. f. klin. Chir.*, xxxix., 1889, p. 97.

to the sternum (and thence probably to the mediastinal glands), and sometimes to the opposite breast. Again, the breast has been shown to extend into the surrounding fat much more largely than was supposed. From these considerations, and the teachings of experience, Mr. Cheyne deduces the following rules of operation: (1) To remove all the skin co-extensive with the prominent part of the breast, never dissecting it from off the tumour; (2) To remove the pectoral fascia co-extensive with the breast, by dissecting off a thin layer of the pectoralis major; and (3) To dissect (not pull away) all the fat and fascia leading from the breast to the axilla, and the whole of the fat and glands in the axilla. He says he has generally been able to stitch up these extensive wounds by undermining the skin and using button-sutures; but this is a matter of comparatively small moment. He gives short notes of a series of cases in which he has employed this method; but it will conduce to clearness if his results are compared with that of other surgeons later on.

The method above advocated is a decided advance on the rather vague practice described as excising the breast and clearing out the axilla. With the view of still further facilitating the access to the axilla, especially its apex, Mr. Arbuthnot Lane[1] advocates the removal of the whole of the pectoral muscles with the adjacent breast, and the careful dissection from the axillary vessels and nerves of every bit of areolar tissue with lymphatics and glands. He was led to this conclusion by finding, in a recurrent case, that he had left a thick cord of infiltrated lymphatics which lay between the two pectoral muscles and entered the axilla above the pectoralis minor. When necessary, he clears out the subclavian triangle by dividing the clavicle and afterwards wiring the fragments together.

Dealing with this subject two valuable papers by Dr. Halsted[2] and Dr. Meyer[3] have recently appeared. The aim of each is identical, and, in Dr. Meyer's words, is "to extirpate the breast, the contents of the axillary, and the sub- and infra-axillary region, and the pectoral muscles in one mass." Their procedures are based on the belief that, in the ordinary methods, the wound may become infected by the division of cancerous tissues or lymphatics, or the cancer-element be pressed into the lymphatics in the frequent handling of the tumour and so be disseminated. The removal of the pectoral muscles is said not to interfere with the after-utility of the arm—the anterior fibres of the deltoid producing adduction;—but were it otherwise, it would be of no importance in such cases.

Dr. Meyer's operation is thus performed: Make the usual elliptical incision liberally, and prolong it at once well into the axilla. An incision is then carried from the junction of the middle and outer thirds of the clavicle to join the axillary extension at right angles. Three skin-flaps are reflected with as little of the

[1] *Tr. Clin. Soc.*, vol. xxvi., 1893, p. 85. [2] *Ann. Surg.*, vol. xx., 1894, p. 497.
[3] *Med. Rec.*, vol. xlvi., 1894, p. 746.

subcutaneous fat as is compatible with their vitality. Taking as landmarks the tendon of insertion of the pectoralis major, the cephalic vein, the clavicle, the edge of the latissimus dorsi, the sternal extremity of the clavicle, and the sternum, he begins by dividing the pectoralis major on the humerus, and its clavicular origin; dissects off the fat over the main vessels and nerves, freeing it from the bicipital sulcus till the edge of the latissimus dorsi is reached; after freeing it from the latter, the whole mass is reflected inwards on the subscapularis and teres major till the chest-wall is reached; the pectoralis minor is detached at its coracoid attachment; and finally the whole mass is severed at the costal origin of the pectoralis major.

The steps of Dr. Halsted's operation are as follows: (1) A liberal skin-incision is made surrounding the breast, and carried at once and everywhere through the fat down to the muscle; and a triangular flap of skin is dissected off the fat as far as the lower edge of the pectoralis major; (2) The costal origin of the pectoralis major is severed, and the muscle split, usually between its costal and clavicular portions, to a point opposite the scalene tubercle; (3) The clavicular origin, with the skin overlying it, is cut through close up to the clavicle (thus exposing the apex of the axilla), and the loose tissue under it dissected away; (4) The splitting of the muscle is continued to the humerus, and the tendon of insertion cut through close to that bone; (5) The whole mass is then raised forcibly and stripped from the thorax close to the ribs and pectoralis minor: when the lower border of this muscle has been passed and exposed, it is divided; (6) The tissues—more or less rich in lymphatics, and often cancerous—which lie over the muscle at its coracoid attachment are divided as far out as possible, and reflected inwards, clearing this part of the muscle, which is then drawn upwards; and the small blood-vessels underneath it are carefully separated and cleaned, and tied close to the axillary vein; (7) The axillary and the beginning of the subclavian vein having been thus exposed as high as possible, the contents of the axilla are to be dissected away "with the sharpest possible knife" (not torn away), and not a particle of fat is to be included in ligatures applied to vessels; (8) The vessels thus cleaned, the axillary contents are rapidly stripped from the side of the thorax and the posterior wall of the axilla, and finally are severed at the line of attachment of the reflected skin-flap. The coracoid portion of the pectoralis minor is removed, as may be the central portion if thought advisable. Dr. Halsted further advises in almost all cases clearing out the subclavian triangle in the same way as the axillary space, since he found that in at least five out of his fifty cases the supra-clavicular glands were enlarged and cancerous. He, however, gives no details as to the method he adopts in carrying out this suggestion. Dr. Meyer,[1] referring to this point, concurs in the suggestion, and proposes prolonging

[1] *Loc. cit.*

his second incision over the clavicle. Dr. Halsted claims for his operation that it is almost bloodless, and that therefore shock is reduced to a minimum. Also, by including only one side of the triangular skin-flap in the suture, and using the rest of it "as a lining for the fornix of the axilla"—the flap being "held in place by a carefully applied dressing,"—he says he prevents gluing of the arm to the side. He does not drain the axilla, and says he invariably gets primary union.

In fourteen cases of mammary cancer in which I have operated, I have always systematically cleared out the axillary fat up to the extreme apex, and all round the axillary vessels; and down the posterior wall, exposing the subscapular vessels and nerve. In several instances I have divided both pectoral muscles, clearing these thoroughly of all fat, and gaining very complete access to every part of the axillary hollow. I have in each case united the muscles again with loose catgut sutures. I have for some time past made an opening for a drainage tube to be passed into the axilla at the dependent part of the lower skin-pouch left after excision, and sutured the operation-wound completely. In seven cases there was union by first intention throughout; in several more this occurred, except where the sides of the wound could not be brought together; and in a few cases a limited amount of suppuration occurred. I have had no serious trouble with any breast case.

In trying to estimate results by the special methods advocated, all the observers adopt the law formulated by Volkmann, that "when, after an operation, a whole year has elapsed without recurrence, one may hope for a permanent cure; after two years this cure is probable; at the end of three years it becomes almost certain."

Dr. Halsted has added at the end of his paper the statistics of a large number of foreign surgeons; but the test on which he seems to chiefly rely in comparing his results with theirs is that of local recurrence; and he further rather obscures the comparison by dividing local recurrences into what he calls truly "local"—*i.e.*, recurrence in the scar itself, using this word in its widest sense,—and "regional"—*i.e.*, skin metastases occurring at a greater or less distance from the line of incision. In this limited sense of "local" his recurrences are remarkably few, only six per cent.; but if the "local" and "regionary" recurrences are combined, the percentage is twenty-seven. A more satisfactory way is to compare the numbers of patients that survive the operation two years or more without recurrence in any series of cases. Of eighteen cases of Dr. Halsted's, nine, or fifty per cent., remained well, of whom four had survived three or more years. Mr. Watson Cheyne quotes fifteen cases operated upon more than two years previous to his paper. Of these, ten, or 66·6 per cent., remained well, of whom three had survived three years or more. Of seven cases in which I operated more than two years ago, one is living and free from recurrence

three and a half years, and another two years, after operation. A third case, operated upon three years and five months ago, I have not been able to trace. Four died at periods varying from one and a half years to four months after treatment.

Dr. Lewis S. Pilcher[1] made a study of such cases (among others) in the Methodist Episcopal Hospital, Brooklyn. A "radical" operation was performed, *i.e.*, systematic removal of axillary fat and glands; wide skin-incision; and, in many cases, excision of large portions of the pectoral muscles. Four out of twenty-four cases had survived three years and over. The general estimate of permanent recurrences is given by Mr. Cheyne[2] as ten or fifteen per cent.

Unfortunately the three-year rule of Volkmann is not a rigid one; and several instances are given by Dr. Halsted and others where patients have suffered a recurrence three or four years after operation, locally as well as internally. Any measures, however, which enable us more frequently to insure immunity from local recurrence are a real advance. To increase more and more the prospects of conferring final immunity by an adequate operation, it will probably become only a question of getting patients to consent to the removal of this disease in its earlier stages.

* * * *

In this connection a paper by Dr. W. B. Coley, of New York,[3] is of the greatest interest. For although the treatment here reported for inoperable malignant tumours seems especially efficacious in the class of sarcomata, yet there seems some hope that the results in carcinomata may improve. The treatment is based on the well-known fact that erysipelas attacking malignant growths has sometimes resulted in their cure. The method consists in injecting locally into the tumour, at intervals of from twenty-four to forty-eight hours, or longer, according to the reaction produced, the mixed toxins of the streptococcus of erysipelas and the bacillus prodigiosus, the cultures being sterilised at a low temperature, but not filtered. After cooling, some thymol is added as a preservative. Of this preparation the dose is one to eight minims. It is of rather uncertain strength; and Dr. Coley advises always beginning with the lowest dose, and gradually increasing it until the desired reaction is obtained, viz., a rise of temperature to 103° or 104° F. This reaction is only temporary, passing off in a few hours. The cases treated have all been either growths which had repeatedly recurred and were finally inoperable, or such as from the first were not fit for operation. In many cases the tumour disappeared by a process of necrosis and disintegration, but in some by absorption. One very remarkable case of the latter kind is quoted in which an enormous spindle-celled

[1] *Ann. Surg.*, vol. xx., 1894, p. 1. [2] *Loc. cit*
[3] *Med. Rec.*, vol. xlvii., 1895, p. 65.

sarcoma, involving nearly the whole of one side of the chest, back and front, entirely disappeared in four months.

He had treated (by the combined toxins, filtered, as he originally prepared them) up to May, 1894, twenty-five cases of sarcoma, eight of carcinoma, and three of carcinoma or sarcoma; and since that date (by the combined toxins, unfiltered, as described above), thirteen sarcomata and eleven carcinomata. In the cases of sarcoma only, can Dr. Coley claim any cures; and of the combined thirty-eight cases, he thinks nine promise to be permanently successful: but, although none of the carcinomatous tumours disappeared, the injections seemed to have an undoubted retarding influence, in some cases to an extraordinary degree.

The method is, of course, still on its trial; but enough evidence has been adduced to more than justify an extended and careful employment of it in these otherwise hopeless cases. The discomfort and risks seem very slight, while the issues at stake are enormous.

W. M. BARCLAY.

OPHTHALMOLOGY.

A large proportion of individuals are, even in the present day, and despite increasing knowledge of the modes of prevention and cure of disease of the eye, losing their sight from causes which are absolutely preventible. Of the inmates of Blind Asylums from a quarter to a half (according to various statistics) have been the subjects of infectious eye diseases: blenorrhœa of the new-born and of adults, trachoma, granular ophthalmia, and allied disorders due to overcrowding, foul air, and want of cleanliness. Very much ought yet to be done in all these by prophylaxis, particularly by the better education of midwives as to the danger of the slightest cold or inflammation in the eyes of a newly-born child.

It has been stated that in America blindness is on the increase, as compared with the population, one of the principal causes being ophthalmia neonatorum. New York and several other States[1] have passed laws with the object of prophylactic treatment of this disease, by imposing a severe penalty upon the midwife or nurse who does not report to the recognised authority any case of infantile ophthalmia directly definite signs of inflammation have shown themselves.

Just lately, after a paper read by Dr. Morrison Ray,[2] in the Kentucky State Medical Society, the following resolution was passed: "Whereas there are in this State nearly one thousand persons blind from ophthalmia neonatorum, and this . . . is largely preventible, being due to the neglect of nurses and midwives . . . there shall be presented to the next

[1] Lucien Howe, *Am. J. Ophth.*, vol. xi., 1894, p. 20.
[2] *Am. Pract. & News*, vol. xviii., 1894, p. 302.

General Assembly for their enactment a suitable law, with proper penalties, requiring nurses and midwives to report . . . all cases of inflamed, swollen, or reddened eyes occurring in infants under their charge within six hours after the discovery of such conditions."

In 1884 the Ophthalmological Society of the United Kingdom[1] held important communications with the Local Government Board, with the intention of introducing some practical means by which ophthalmia in infants should be prevented, or when occurring should be at once submitted to effective treatment. In Ireland the authorities took action without delay, in accordance with the advice given by the Society; but in England the usual official difficulties were arrayed against the proposal, and no further progress has since been made, though the French, Austrian, and Hungarian Governments had issued edicts on this subject previous to the date mentioned.

In all forms of conjunctivitis, cleanliness by means of frequent thorough washings of the everted mucous membrane is the first essential for cure. In the simple cases, which are by far the commonest of all diseases of the eyes, nothing else is required than a liberal use of boric acid solution (which is improved by the addition of common salt) as a spray or a douche in an eye-cup at a temperature of about 60° F. A three per cent. solution of peroxide of hydrogen has been much extolled by Dr. Lautenbach[2] as a wash for the conjunctiva. He mentions three trustworthy brands of manufacture, and considers that the free acid usually left for preservation of the fluid is objectionable. Tepid water and Castile soap are valuable for cleaning the lids. Wade[3] prefers a lotion of carbolic acid (which is anæsthetic) with boric acid and glycerine.

In chronic cases of conjunctivitis, massage with castor oil, and in the follicular variety acetate of lead ointment, are recommended; and for trachoma, trituration with alum, sulphate of copper, or modified nitrate of silver stick. Dr. Kenneth Scott, who has had exceptional opportunities in Egypt of treating trachoma, formerly used a four per cent. solution of perchloride of mercury, with an eyedrop of a quarter per cent. At the Bristol meeting of the British Medical Association, he advocated, as an improvement, the use of cyanide of mercury, which is much less irritating and quite as efficacious. A four per cent. solution of the cyanide should be daily brushed on the everted lids, and a quarter per cent. solution used as an eye-drop three times a day. A slower cure is obtained by painting a one per cent. solution, and using as a drop one in 1,000. Warm weather seems distinctly favourable to a cure. Mr. Stephenson advocates a one per cent. solution of the perchloride, sulphate of copper crystal, and "expression." He considers trachoma to

[1] *Tr. Ophth. Soc. U. Kingdom*, 1885. [2] *Am. J. Ophth.*, vol. xi., 1894, p. 44.
[3] *Therap. Gaz.*, vol. xviii., 1894, p. 720.

be a specific form of follicular conjunctivitis, due to the irritation of a specific organism. Many authorities still consider sulphate of copper crystal the best application.[1]

In blenorrhœa, all authors agree as to the value of nitrate of silver; but there is much difference in the strength of its application. The two per cent. solution recommended by Credé for disinfection of the eyes of newborn children is the strength generally applied for all kinds and stages of purulent ophthalmia. The value of this remedy is probably largely due to its antiseptic properties. Weeks found that a two per cent. solution destroyed the vitality of staphylococcus pyogenes aureus and typhoid bacillus in eight seconds, and that a one per cent. solution killed them in twelve seconds. Solutions of one or two grains to ʒj are by some considered effectual as eyedrops, while several American oculists use sixty grains to ʒj, and the solid caustic is a constant remedy. Taken in time ophthalmia neonatorum is readily cured; but progress of a few days makes the disease much more serious. In the gonorrhœal ophthalmia of adults, prognosis must be very guarded. In one of the largest and best conducted eye clinics, out of 250 eyes affected with this disease 30 were lost, and the cornea was badly damaged in 74.

While nitrate of silver is of such value in purulent conjunctivitis, its application in the treatment of membranous and diphtheritic conjunctivitis is contra-indicated. Valude[2] also condemns cold compresses and sublimate lotions. He relies on warm sprays of weak non-irritating antiseptics, and he prefers a solution of extract of opium in sterilised water and glycerine. He also applies iodoform ointment to the *cul-de-sac*, treating corneal complications as they occur, and rigidly maintaining the general health. Three cases are reported of successful treatment of diphtheritic conjunctivitis by antitoxin injections. The nature of the cases was proved by bacteriological examinations. Dr. Coppez[3] cured a child one year old by one injection of Behring's serum. In twenty-four hours she was "literally transformed:" the eyelids had recovered their suppleness, the infiltration was disappearing, the false membrane had come away, and in four days the cure was complete. Jessop[4] reports two cases: (1) A boy nineteen months old received three injections of Klein's antitoxin (ʒss. each); the membrane disappeared in five days. (2) A boy eight months old had severe implication of the ocular and nasal mucous membranes, with enlargement of the parotid lymphatic glands. Two injections of Klein's antitoxin (ʒss. each) were given, and the membrane disappeared in five days. It was uncertain how long the membrane had been present before treatment was commenced. There are probably no cases on record of diphtheritic con-

[1] *Brit. M. J.*, 1894, vol. ii., p. 589, contains a paper by Juler, and a discussion on the general subject of ophthalmia. [2] *Ann. d'ocul.*, Fév., 1894.
[3] *Brit. M. J.*, 1894, vol. ii., p. 1340. [4] *Lancet*, 1895, vol. i., p. 347.

junctivitis so rapidly and completely cured, and in them no local treatment, excepting distilled water, had been used.

* * * *

The importance of frequent sterilisation of the eyedrops in general use, such as atropine, cocaine, eserine, &c., which become infested with micro-organisms, has been emphatically shown by Dr. G. E. de Schweinitz and his brother.[1] They examined the pipettes and collyria in use in the clinic and found micrococci, bacilli, and fungi present. Among them were the micrococcus prodigiosus, proteus vulgaris, and bacillus implexus, which not only cause toxic conjunctivitis and serpentine or sloughing ulcers on an abraded cornea, but when reaching the aqueous chamber set up purulent inflammation of iris and deeper coats of the eyeball.

In the Bristol Eye Hospital we have for some time been in the habit of sterilising all dressings and applications for operation cases as well as the alkaloidal collyria in the out-patients' department.

F. R. Cross.

Reviews of Books.

A Treatise on the Diseases of the Ear. By T. Mark Hovell. Pp. xxiv., 720. London: J. & A. Churchill. 1894.

This is one of the most complete works on the subject of Ear Diseases in the English language, and is brought so well up to date that it will largely take the place of the translations of German works, upon which we have hitherto had to rely for anything like a full account of the subjects here treated. The book contains 122 illustrations, and although no less than half of these are of instruments used in aural surgery, yet we are not among those who would omit these, as they greatly facilitate the written descriptions of the various operations and manipulations.

The author begins with a thoroughly good account of the anatomy and physiology of the ear. This account is not a mere transcript of the usual hackneyed chapter found in many English text-books, but contains a good description of the most modern views of the structure and functions of the organ of hearing. Other chapters follow, dealing with the examination of patients suffering from the various forms of deafness, and

[1] *Therap. Gaz.*, vol. xviii., 1894, p. 443.

here the valuable experience of the author enables him to deal lucidly with the manipulations and experiments necessary to form an accurate diagnosis.

Diseases of the different parts of the auditory apparatus are next described, and the important subject of treatment is fully considered. Among the best parts of the book is that dealing with the intra-cranial complications of ear diseases, which are so often neglected by works on aural surgery and relegated to works on general surgery.

The author quotes largely from Schwartze, Politzer, Barker, Lane, and other well-known workers in this department; but he perhaps hardly does justice to the good work done by Stacke (although he certainly gives a description of an operation by him for caries of the temporal bone), as he omits without any mention the operation known as "Stacke's operation" for the permanent relief of obstinate cases of antral suppuration.

Deaf-mutism is very briefly dealt with in a short chapter of seven pages, and the author is wise in not attempting to deal fully with such an important subject as this in a work intended for the practical surgeon. Upon the whole, we consider that the book is good as well in its omissions as in its contents, and that it will take high rank as a standard English text-book.

An American Text-Book of Gynecology. Edited by J. M. BALDY, M.D. Pp. 713. Philadelphia: W. B. SAUNDERS. London: F. J. REBMAN. 1894.

The method of combined authorship by which this book is written seems to give most excellent results; for by this means we not only obtain such sound and well-tried principles and practice as the co-workers feel that they can collectively recommend, but we also avoid errors which may arise from individual bias.

The work has been carefully prepared, and the subject is treated in a clear and readable manner. An important feature is the completeness with which the text has been supplemented and enforced by means of illustrations. One has only to turn to the plates showing the various steps by which the operation of hysterectomy—by clamp or ligature—is performed to see how extremely helpful such illustrations are, and how well the authors have done this part of their work. We feel, however, that here and there the application of photography has been somewhat abused: for we do not think it necessary to have two pictures of a faulty gynæcological position, as well as one of the correct attitude; and again, if we must have a picture of an operator in correct costume bathing his hands in permanganate of potash, surely we do not require to see the same gentleman washing in oxalic acid afterwards. If the clothing in these latter pictures is meant to compensate for the absence

of garments in the former ones we have referred to, we should perhaps have less cause for complaint.

On the whole, we are very pleased with the work, which is well up to date. We are particularly impressed with the chapter dealing with genital tuberculosis and uterine neoplasms. It is worth noting that the authors regard the use of ergot with more favour than electricity in the treatment of uterine fibroids.

The book is very free from typographical errors, but the "Right labia majora," on p. 182, should obviously be "Right labium majus." The index is very complete, the book is well printed, and the illustrations most artistically executed; but some of the half-tone pictures do not compare favourably with the photographic and coloured plates.

An International System of Electro-Therapeutics. By HORATIO R. BIGELOW, M.D., and Thirty-eight Associate Editors. Philadelphia: THE F. A. DAVIS COMPANY. London: F. J. REBMAN. 1894.

This "System" is the work of thirty American, two British, two Canadian, and four French writers. It may be described as monumental, as it runs to 1126 pages, and is certainly a very large book to tackle. It is, however, intended mainly as a work of reference, and therefore quite rightly aims at completeness. The editor informs us in the preface that "each paper is a classic of itself:" obviously 1894 will be responsible for quite a respectable addition to the number of our classical writers.

Taking the book as a whole, we first remark in what a variety of cases we can, if we choose, apply electricity. It appears that every disease to which mankind is liable may be so treated, with the exception of the specific fevers; we may doubtless anticipate that this omission will ere long be rectified. The plan of the work has apparently been to put each division of the subject into the charge of some person eminent for his knowledge of that branch, and to give him a free hand in writing his article. Excellent as this plan is in most respects, it has some disadvantages. In the first place, there is apt to be considerable overlapping in articles treating of different branches of the same subject; and secondly, some articles are likely to be of disproportionate length. The second failing is not particularly noticeable in this work; but there is considerable repetition, adding unduly to the length of the book without any corresponding advantage. Each author has been allowed to describe his own particular set of apparatus; it would have saved space and the reader's time, and also conduced to clearness, if descriptions of all the apparatus had been given in one section, with some general help from the editor to aid selection.

At present the number of batteries and other instruments is somewhat bewildering, to say nothing of the claims of rival makers. Then each writer should have been kept strictly to his subject; for instance, it is superfluous, in the section on "Electro-Therapeutics of Diseases of the Lungs and Heart," for the writer to describe at length the symptoms and general treatment of asthma, especially as the value of electricity in this disease, judging from the writer's own statements, is somewhat dubious. So, again, the description of Graves's disease is too long. No one would be likely to refer to a work on Electro-Therapeutics for a general account of asthma or of Graves's disease. A critical review of Apostoli's treatment illustrates a defect of the opposite kind: the author ends with a lengthy description of what he calls the "rapidly-alternating sinusoidal-induced current," which has little connection with the main subject of the article, and would have been more in place in one of the earlier sections of the work.

Each paper as it stands reads well, if referred to for itself alone; and, speaking generally, the various writers take common-sense views, and their statements appear to us to be trustworthy. Of course all the articles are not of equal merit, but in the main they attain a high standard. Merely as a work of reference for each particular subject this "System" is well compiled; but the editor does not seem to have attempted to weld together the articles to form one continuous whole, and there is therefore, as we have said, a good deal of redundant matter, without which the book would be stronger.

The amount of space given to the treatment of diseases of women by electricity, and the number of articles—no less than ten—devoted to this subject, seem to indicate that this is at present, at any rate in America, the fashionable mode of treatment. We cannot criticise these communications at length. Dr. Kellogg, in his paper on the "Methods of Apostoli and others," insists upon the necessity of accuracy in diagnosis, and of due precautions in carrying out electrical treatment. Dr. Inglis Parsons gives a short, clearly-written article on the treatment of cancer of the uterus by electricity, in which the reader will find the necessary information as to the selection of the cases and method of procedure most likely to lead to success.

The sections on Galvanism and Faradism are both good, but rather long; the former especially is too diffuse, and the history of the subject, more especially that of Franklin's researches, though interesting and well-written, is perhaps too lengthy for a System of Electro-*Therapeutics*. The article on Electro-Physiology, which overlaps that on Galvanism somewhat, is one of the best in the book, and contains a particularly clear account of the controversy as to the true meaning of muscle- and nerve-currents. There is a highly interesting and well-written chapter on Animal Electricity, by Prof. Wesley Mills. A clear, succinct

description of the methods of Electro-Diagnosis, by Dr. W. F. Robinson, containing the essential points of the subject, precedes an article on Cataphoresis or Anodal Diffusion, by Dr. Peterson, who seems to have obtained good results from the anodal diffusion of drugs, especially in the treatment of facial neuralgia by ten to twenty per cent. solutions of cocaine. Local anæsthesia is produced without any constitutional effects and relief from pain afforded for some hours. He finds it possible to administer exact doses in this manner.

The electrical treatment of diseases of the nose, naso-pharynx, pharynx, and larynx has received full justice in the capable hands of Dr. Sajous. There is a most readable and excellent contribution on Neuroses, by Dr. Morton Prince, which will well repay careful study, and an equally good section on Diseases of the Spinal Cord, by Dr. William J. Morton.

We have not been able to particularise the other contributions, but we believe that the reader who refers to them will find in each full information on the subject of which it treats. There is a very good and full index, and the book will no doubt find its place as a useful work of reference. The editor is to be congratulated on bringing what must have been a very laborious task to a successful conclusion. The illustrations are good and abundant.

Bèri-Bèri. By ARTHUR J. M. BENTLEY, M.D. Pp. xii., 245. Edinburgh: YOUNG J. PENTLAND. 1893.

This book consists of a thesis on Bèri-Bèri written for the M.D. degree of Edinburgh in 1889, and a short abstract of some of the more important pathological work done since then, chiefly by Scheube and Baelz and Miura, together with an appendix containing clinical reports of sixty-eight typical cases, in nineteen of which *post-mortem* examinations were made. First of all we will give unqualified praise to the excellent series of photographs which illustrate in the most graphic and satisfactory way the position of the limbs, mode of progression and station in paralysis due to multiple neuritis, the cause of the nervous symptoms of Bèri-Bèri. Then to anyone practising in the tropics the clinical histories in the appendix will be both instructive and practically useful; as a rule the essential features of the different clinical forms of Bèri-Bèri are well brought out; the progress of the cases after admission should, however, have been given in all. We notice in the account of the examination of the urine repeatedly under the heading Phosphates "O" or "a trace": we suppose that this means phosphates precipitated on heating the urine; this should have been clearly stated.

There is a wealth of material in the book, which, however, it requires a good deal of patience and unnecessary trouble to get at. With no wish to find fault, we cannot say that the book

is well arranged. It is difficult from it to get a clear idea of the etiology, symptoms, and pathology of the disease. The thesis itself should have been re-written and brought up to date. An attempt is made in an addendum to give some of the recent work on the pathology of Bèri-Bèri, but it is not by any means complete, the author stating that his only acquaintance with the very important work of Pekelharing and Winkler lies in a review in the *Lancet*. Then from the faulty arrangement of the book we read first the author's views as to etiology and pathology, and in addenda other observations completely contradictory to them. These later observations seem, so far as we can judge, to be correct, and to be supported by better evidence and by more thorough methods of work than the author's. For instance, the theory he brings forward that the nervous symptoms are due to changes in the cord seems to be altogether disproved and their dependence on lesions of the peripheral nerves fully established; whilst the influence of diet from the quoted observations of Dr. Takaki, late Director-General of the Tokyo Naval Hospital, would seem to be of very much greater importance in etiology than the author allows.

It seems to us that the author relies on the reader to take the trouble which it was his own duty to take, and that he has not taken sufficient pains to assimilate, digest, weigh, and duly arrange in a clear and readable form the clinical and pathological facts so far as they are known at present, and therefore the work fails in these essential features of a monograph, and in the not less essential ones of completeness and authoritativeness.

In spite of the defects we have indicated, the book contains one of the most complete accounts of Bèri-Bèri to be found in the English language, described by an author who has had a very large experience of the disease.

Diseases of the Nose and Pharynx. By JAMES B. BALL, M.D. Second Edition. Pp. xii., 364. London: BAILLIÈRE, TINDALL AND COX. 1894.

The present edition of this handbook has been considerably enlarged from the first edition, which treated of the nose and naso-pharynx only, while this includes the pharynx. This is an improvement, for it is absurd to separate diseases of the naso-pharynx from diseases of the pharynx. The book is eminently practical, for by avoiding theoretical discussions and by excluding references to, or descriptions of, illustrative cases, the author has kept it within a moderate compass and yet has included all that is of general interest.

There is perhaps no specialty—unless it be gynæcology—where the enthusiast is so apt to run riot as in rhinology, and we have great need to walk warily in order to avoid bringing

discredit upon the whole subject. Dr. Ball speaks with the caution of the true man of science: he is no blind devotee; he treats of what he has seen and known, and in the main he may be safely followed.

We note with approval that the author recommends chloroform as the best anæsthetic for the removal of adenoids in young children, also that he recommends the patient to be lying on the right side with the head on a low pillow and bent a little forward. With this position and the use of Gottstein's curette there is nothing left to be desired. The chapter on diseases of the accessory sinuses is very complete: light is gradually being thrown on these terrible diseases, which so often lead to intracranial complications, and the author has kept himself abreast with the modern literature of the subject. In the treatment of abscess of the antrum, Dr. Ball recommends perforating through the socket of a tooth in preference to the method advocated by some of enlarging the natural aperture into the nose. We quite agree with him that the dependent opening is the best and gives the best results. The chapter on "Atrophic Rhinitis" is excellent, as also is that on "Hay Fever." In treating of deviations of the septum the author wisely advocates caution. Unless stenosis exists, giving rise to persistent catarrhal symptoms, interference is deprecated, but when operation is necessary the use of Bosworth's saw is advised. We fail to find anywhere in this work the wholesale removal of turbinated bones recommended, whether necrosing or varicosed, which is unfortunately so much in fashion at the present day; on the contrary, the extreme value of the presence of the turbinated bodies for healthy respiration is insisted upon, and we hope the day is far distant when the profession as a whole will endorse the barbarous method of treating slight affections of the nose by removal of unoffending necessary portions.

Hydatid Disease. Vol. II. By the late JOHN DAVIES THOMAS, M.D. Pp. xii., 166. Sydney: L. BRUCK. 1894.

This book is a very valuable contribution to our knowledge of hydatid disease. It is written by a medical man who practised in Australia, where the disease is so common, and occurs not infrequently in those rarer forms which we seldom see in this country. In 1884 Dr. Thomas published the first volume, the title of which was *Hydatid Disease, with Special Reference to its Prevalence in Australia.* Unfortunately his health broke down before he had completed the second volume. But it has been edited by Dr. Lendon, his former partner, who has not added to or altered the text.

This volume is clinical in its scope, and deals with hydatid disease affecting various organs and tissues. The chapter on "Hydatid Disease of the Lungs" is particularly valuable, as

the disease in those organs is rare in this country, but by no means so in Australia. The last portion of the work is devoted to the consideration of the various methods of treating hydatids by operation. The volume is evidently the result of very laborious study and careful clinical observation.

A Manual of Therapeutics. By A. A. STEVENS, A.M., M.D. Pp. 435. Philadelphia: W. B. SAUNDERS. 1894.

This addition to the numerous manuals of therapeutics is distinctly a good one. It does not aim at doing more than serve to the student as an introduction to the large text-books. Without going so far as to say that it is superior to those already in use, it is to be recommended as being systematic, clear, concise, very fairly up to date, and carefully indexed. The division on applied therapeutics will be useful to junior practitioners as well as to students. A second edition will give an opportunity of removing some few slight faults and infelicities of expression.

Diseases of the Nose and Throat. By F. DE HAVILLAND HALL, M.D. Pp. xii., 524. London: H. K. LEWIS. 1894.

Though several large and complete treatises on diseases of the nose and throat have been published during the last few years, the student and general practitioner will welcome the more handy manual which enables them to make a satisfactory clinical investigation of these regions and to recognise and treat most of the diseases which may arise therein.

Dr. De Havilland Hall is a physician of great experience, and we turned to his work with every expectation of finding a masterly exposition of the subject, but though he has noted every point of practical importance to the practitioner, we confess to a sense of disappointment in that the author seems to have done justice to every laryngologist of eminence but himself. Yet the reader may feel assured that the matter which has been brought into a readable form has been collected and arranged by a skilled hand, and is remarkably accurate and up to date. In this small manual the very numerous references to medical literature have the effect of unduly breaking up the text, while in many instances the references are given to the less important contributions on particular points, and therefore are misleading to those who use them as a guide. The illustrations consist mainly of instruments, and the absence of good figures of the laryngoscopic image in health and disease is a serious defect. Nevertheless, this work will be a valuable addition to

the library of every student and practitioner of medicine who feels the need of a practical handbook on laryngology and rhinology.

Lunacy Law for Medical Men. By CHARLES MERCIER, M.B. Pp. iv., 148. London: J. & A. CHURCHILL. 1894.

Dr. Mercier's name is so well known in lunacy that we felt confident that a book dealing with the Lunacy Law from his hands would be valuable. This book, though small, is yet so excellent and systematic in its arrangement, and so lucid in the setting forth of its subject, that no medical man using it as his guide need doubt his ability to understand the Lunacy Act of 1890 so far as is necessary. Every practitioner should provide himself with a copy for his writing table, in order to have a handy compendium by him of the proceedings which are prescribed by law with respect to dealing with insane persons.

Medical men for some time past have been trying to put aside one of their responsible duties which is of the greatest importance to society as well as to their patients. Signing medical certificates for the insane has been avoided under every pretext possible for fear of grave supposed risk attending their so doing. As Dr. Mercier well observes: "Such an attitude on the part of a medical man is hardly more reasonable than that of a patient who refuses food for fear it may contain poison." He also says: "It is scarcely too much to say that if the rules and precautions recommended in this book are followed, the risk is altogether obviated."

Deaf-Mutism. By HOLGER MYGIND, M.D. Pp. vii., 300. London: F. J. REBMAN. 1894.

The author of this book pleads for indulgence to any shortcomings of language, on the ground that he is not an Englishman, but such indulgence is by no means necessary inasmuch as the language would do credit to any English writer. The book bristles with statistics which are, of course, drawn largely from Danish sources, but tables are also given from all countries of Europe as well as from America. Careful investigations are found here into the relative proportions of congenital and acquired deaf-mutism, one of the most curious features of which is the fact that the statement as to the numerical proportion between congenital and acquired deaf-mutism varies greatly in different countries. The author has carefully investigated the interesting questions of hereditary tendencies and the effects of consanguineous marriages, with both of which he deals in an eminently judicial spirit.

The vexed question of the best mode of educating deaf-mutes is very fairly summed up as follows: "There can no longer be any doubt that the method of instruction by which the deaf-mutes are taught to speak is superior to the method by which deaf-mutes are taught to communicate with their fellow-creatures by means of signs." But the author adds, that the question whether the oral method is the most serviceable for *all* deaf-mutes must be left to pedagogues.

The book should be carefully studied by all who are interested in the treatment or instruction of deaf-mutes.

A Treatise on Diseases of the Skin. By T. M'CALL ANDERSON, M.D. Second Edition. Pp. xx., 761. London: CHARLES GRIFFIN AND COMPANY, LIMITED. 1894.

We are very glad to see a second edition of this work; and when we notice that it comprises an analysis of 12,000 cases which, either in hospital or private practice, have come under the author's personal observation, we are naturally inclined to see what proportions some of the more common skin affections bear to the whole number. We are not surprised that out of the 724 pages in the body of the work, 138 are given to the varieties of eczema and its treatment, 37 to psoriasis and lepra, and 30 to syphilitic affections. Eczema constitutes more than one-fourth of the 10,000 hospital cases, and 34.8 per cent. of the private ones. And whilst we have always understood that scabies was very prevalent in Scotland, we were scarcely prepared to find that the cases in hospital practice numbered precisely the same as those of eczema; or in other words, out of every 100 skin patients seen, a fraction over 50 would be divided equally between eczema and scabies. The practical issue of this is, that the treatment and description of these affections are very full and very satisfactory, and are well worth the attention of the busy practitioner, who will be repaid by some very elegant and practical formulæ. We like the contrasted tables of diagnosis: speaking broadly, they are good and graphic.

In almost every new work on Skin Diseases, or new editions of standard works, we look to see what is said about preparations of tar. These are often *very* beneficial, when they do good at all; but on the other hand, they so often set up severe irritation and annoy patients, that we never prescribe the remedy at first without giving the patient a warning. We are desirous of finding whether any trustworthy guiding principles have been discovered, and hitherto we have not been happy enough to find any. Nor does Dr. Anderson help us in this matter.

Then to glance at a few rarer affections. On page 101, erythema circumscriptum [lichen circinatus (Wilson), seborrhœa corporis (Duhring), seborrhœa papulosa (Crocker)] is described

as non-contagious. Dr. Anderson says its appearance is suggestive of parasitic origin. It is certainly auto-infectious. One sentence strikes us as remarkable: "It is a relapsing affection, and in some persons only disappears in summer to re-appear at each succeeding winter." Is not the explanation of this, that flannels are left off in summer to be put on again in the cold weather? Let Dr. Anderson have these flannels thoroughly disinfected by hot stoving, and the patient treated by sulphur ointment or some other parasitic destroyer, and we think the relapses will be much diminished.

The author very mildly admits that boils may be occasioned by micrococci. With treatment which thoroughly emphasises this origin, we very rarely meet with recurrences, or "fresh crops."

For some of the contributions Dr. Anderson is indebted to those who have had very special opportunities of considering the subjects with which they deal.

We have rarely seen a work more carefully revised and corrected, of which no better proof can be given than that, with the exception of "utricatus" for "urticatus" in the index, which is very copious, and perhaps one or two more such trivial errors, there seems no misprint in the work. Upon the whole it is a grand and practical work, and well worthy of the Professor of Clinical Medicine in the University of Glasgow.

The Treatment of Wounds, Ulcers, and Abscesses. By W. Watson Cheyne, M.B., F.R.S. Pp. xii., 197. Edinburgh: Young J. Pentland. 1894.

In this small book the author does not attempt to discuss the whole subject of the treatment of wounds, or the various plans which are used by different surgeons, but contents himself with describing in simple language the method which he himself employs, and has found to be the simplest consistent with certainty in the results. The text of the book may be found in a sentence placed at the beginning, "Suppuration occurring in a wound made by a surgeon through unbroken skin is due to some oversight on his part." Dr. Watson Cheyne is a well-known advocate of the Listerian or antiseptic method of treating wounds, rather than that adopted by many Continental surgeons, notably in Germany, of attempting rigid asepsis as opposed to the employment of antiseptics. He points out the extreme difficulty of carrying out a rigid asepsis, especially in hospital practice, where it has even been found necessary to separate the auditorium from the area of an operation theatre by a wall of plate-glass! In well-marked contrast with such elaborate details as are here involved, the plan recommended by the author is as simple as possible. He does not even consider it necessary to boil instruments or suture-materials,

but considers that immersion for two or three hours in a 5 per cent. solution of carbolic acid is quite sufficient. He does not agree with Mr. Lockwood that the ordinary methods of disinfecting the skin are quite inefficient, but says: "It is quite evident that some error in the bacteriological methods has crept into Mr. Lockwood's experiments." The book throughout bears evidence of the truly scientific spirit. It is written by one who has worked largely at bacteriology as well as practical surgery, and we quite agree with him that a knowledge of the former is absolutely necessary at the present day for the successful working of the latter.

A Manual of Human Physiology. By JOSEPH H. RAYMOND, A.M., M.D. Pp. 382. Philadelphia: W. B. SAUNDERS. 1894.

This book contains a concise and clear epitome of the main facts of human physiology. It is written in a somewhat "popular" style, and gives the impression of the lecture-room rather than the laboratory.

The illustrations are numerous, and many of them are good, but their source is not always acknowledged as it should be: for instance, some of Maclise's plates, Horsley's and Schäfer's diagrams of cerebral convolutions, and some of Quain's excellent drawings are introduced with no mention of their authorship. We notice that the term "organic" is used to denote anything possessing "organs," and "proximate principles" as synonymous with "physiological ingredients." This nomenclature is puzzling, and liable to lead to confusion. Some of the figures given as to the percentage of water in urine, gastric juice, milk, &c., are inaccurate; but the mistakes are not numerous, and a great deal of care has been evidently taken in compiling the book and making it instructive. There are, however, so many excellent physiology books and primers now published in England, that we do not anticipate a large sale of the work in this country.

Lectures on Auto-Intoxication in Disease. By CH. BOUCHARD. Translated by THOMAS OLIVER, M.D. Pp. xvi., 302. Philadelphia: THE F. A. DAVIS COMPANY. London: F. J. REBMAN. 1894.

For many years Prof. Bouchard has been making experiments on the poisonous properties of the excretions in health and disease, and in this volume summarises his results, pointing out the part played by these poisons—which are produced both by the

katabolism of the tissues and by putrefaction in the intestinal canal,—and giving the indications for treatment suggested by the investigation of their occurrence and properties.

The complexity of the subject is great: it is, for instance, somewhat bewildering to be told that normal urine contains seven toxic substances—an antipyretic, an organic and an inorganic convulsive substance, a diuretic, a myotic, a narcotic, and a sialogogue substance; so that failure in the excretion of one or more of these brings about the corresponding result. Thus, in uræmia it is found that the urine has no toxic properties, and that the varying nature of the symptoms—whether mainly convulsive or mainly comatose—depends on the proportions of the various poisons which are retained. Again, Prof. Bouchard shows that the bile is poisonous chiefly by reason of its pigments, and that as long as the kidneys excrete these there is no danger; whereas if they fail, the urine ceases to be toxic and symptoms of poisoning—cholæmia and uræmia—occur.

We owe Dr. Oliver a debt of gratitude for translating these lectures, which not only point out how many methods of treatment, which have been long practised, do good, but also are an important contribution to a deeper knowledge of the complex chemistry of the animal body and a corresponding increase in our power in the prevention and treatment of many diseases.

Diseases of the Upper Respiratory Tract. By P. WATSON WILLIAMS, M.D. Pp. xvi., 282. Bristol: JOHN WRIGHT & Co. [1894.]

This manual, written by a physician, deals especially with the medical aspect of rhinology and laryngology, while at the same time a good outline of the surgical treatment is added, so as to make it a complete work of reference for the student or practitioner. In such a work we naturally find prominence given to such subjects as "throat affections of infectious fevers, gout, and rheumatism"; "chronic infective diseases," such as syphilis, tuberculosis, and leprosy; and "neuroses of the larynx": accordingly there are useful chapters on each of these topics, while shorter descriptions are given of the more purely manipulative and operative procedures such as tracheotomy, tonsillotomy, and thyrotomy. We notice, however, a very good and practical description of intubation, of which the author speaks with discriminative approval, especially recommending it for laryngeal obstruction the result of acute laryngitis in children in all cases "where medical aid can be summoned within half-an-hour should the tube be coughed up." Comparatively little space is devoted to the subject of diphtheria, inasmuch as it "is treated at length in every text-book of general medicine." We think, however, that any work on

throat diseases ought not to omit a description of the Klebs-Loeffler bacillus and a figure of its microscopical appearance. The author very properly remarks that "there is no longer any doubt as to the occurrence of membranous croup distinct from diphtheria," but he hardly insists enough upon the fact that the only positive distinction between the two is the bacteriological one.

The book is illustrated with five coloured plates as well as numerous woodcuts, all drawn by the author himself and most of them from nature, while the frontispiece shews a beautiful dissection in the museum of Bristol University College illustrating the anatomical relations of the interior of the nose, naso-pharynx, pharynx, and larynx. Most of the illustrations are distinctly good, and greatly add to the value of the book. It is written in a pleasant easy style, and is particularly well adapted for students commencing the study of throat diseases.

Medical Nursing. By the late JAMES ANDERSON, M.D. Edited by ETHEL F. LAMPORT. Pp. xii., 184. Second Edition. London: H. K. LEWIS. 1895.

That two editions of this book should have been issued in three months suffices to show that the late Dr. J. Anderson had already established a reputation as a teacher and physician. Of these lectures on nursing, only the introductory one was fully written out by the author; the others have been put together by Miss Lamport from the brief notes of the author himself and from others taken down at lecture by some members of his audience. This probably accounts for the rather incoherent character of the composition and lack of order in arrangement. It must be borne in mind that these lectures were but the concluding course of a series, and that this book, therefore, is not a complete manual of nursing; but it will be useful to nurses of some experience who have other text books. In the second edition some small improvements have been made, although some errors remain uncorrected. A sympathetic notice of the author by the late Sir Andrew Clark prefaces the body of the work.

De l'Agrandissement Momentané du Bassin. Par ADOLPHE PINARD. Pp. 59. Paris: G. STEINHEIL. 1894.

For the last few years M. Pinard has been a warm advocate for the operation of symphysiotomy, and the present excellent monograph shows that a wider experience has only confirmed his earlier views on the subject.

The work is divided into the following sections: (1) Clinical and statistical. (2) The anatomy and physiology of the sacro-iliac articulations before and after puberty. (3) Mensuration and indications for symphysiotomy. (4) The operative technique. The results at the Baudelocque clinique have been so good that they compare favourably with the operation for induction of premature labour; thus, during a portion of 1892-1894 there were thirty-six symphysiotomies (twenty-three of these being performed by the author), one pubiotomy and one ischio-pubiotomy (Farabeuf's operation). Of these thirty-eight cases, thirty-six women recovered and two died; and thirty-four children were born alive and four dead: whereas, of sixty-four cases of induction of premature labour, sixty-two women recovered and two died; and thirty-five children only were born living and thirty dead.

The work is carefully written, and the subject scientifically considered. There are several useful plates and diagrams, and the book has been printed and prepared in that clear way which makes so many of the Continental *brochures* pleasant to read. It is an excellent addition to the literature of the subject.

The Dyspepsia of Phthisis. By W. SOLTAU FENWICK, M.D. Pp. xii., 203. London: H. K. LEWIS. 1894.

Dyspepsia, both as a cause and as one of the results of tubercular disease, deserves far more attention than it commonly receives. This book strikes out a new line, contains much interesting matter, and is likely to do good service to many a dyspeptic on the verge of phthisis, as well as to many of the victims of the secondary dyspepsia of tubercular disease.

It is well known that true tubercular ulceration of the gastric mucous membrane is exceedingly rare: in 2,000 autopsies on cases of phthisis at the Brompton Hospital, there were only two cases of true ulceration resulting from tubercle. The author's explanation of this rarity is, on the one hand the small amount of lymphoid tissue in the stomach, and on the other hand the hostility of acid secretion to bacillary growth; hence, even when introduced in large quantities into the stomach by means of the swallowed expectoration, the bacilli are rendered temporarily inert, and are passed on into the small bowel without having effected a permanent lodgment.

But it is more especially the gastro-enteritis of phthisis in its different varieties with which the author deals, and from the various facts cited he formulates the conclusion that "the gastritis is probably due to the chronic absorption of certain toxic substances which are manufactured in the pulmonary cavities." Several chapters are devoted to the relation of organic disease of the stomach to pulmonary tuberculosis, the

dyspepsia preceding phthisis, the initial dyspepsia, and the terminal dyspepsia, including perforation.

One of the least defined of the varieties described is "the dyspepsia of strumous children." The author remarks that the tubercular diathesis is closely associated with various forms of neurosis, and it is therefore not unreasonable to suppose that the subjects of this disorder may occasionally exhibit an extreme irritability of the nervous mechanism of the digestive tract, which may show itself in the form of sudden and painful peristaltic waves. It must be easy, and often most convenient, to make a diagnosis of this malady, but equally difficult to establish the diagnosis on any accurate principle, seeing that pain in the abdomen is the one most constant and characteristic feature of the malady.

We are much astonished to find no mention of creasote, guaiacol, or their combinations, in the treatment of tubercular disorders of the alimentary canal.

The Theory and Practice of Medicine. By FREDERICK T. ROBERTS, M.D. Ninth Edition. Pp. xvi., 1168. London: H. K. LEWIS. 1894.

The fact that this well-known and widely popular work has reached its ninth edition renders any criticism on our part superfluous. The author has kept his book well up with the progress of modern research, and it shows throughout evidence of careful revision. Two new features to which Dr. Roberts calls special notice are the increased attention that has been given to bacteriology and the sections on general therapeutics; both these add considerably to the value of the work. We have no doubt that the latest edition of this excellent text-book will meet with as much success as the former ones.

Diseases of the Breast. By W. ROGER WILLIAMS. Pp. vii., 572. London: JOHN BALE & SONS. 1894.

We believe this work to be one of the most thorough and trustworthy monographs recently published. It is complete in every way, and the information given is well up to date. The labour of its production must have been very great, but the result is so satisfactory that it is well rewarded. From the pathological and clinical aspects it is equally good. Of course, no book of this kind can be written wholly on the experience of the writer, or it would be conspicuously incomplete; but the author of this monograph has illustrated it throughout with

cases under his own observation, and his own views are frequently to be found, based generally on careful and elaborate investigation. So much for the general character of the work; but before considering the subjects treated of, we ought perhaps to draw attention to the fact that it is written with special reference to cancer of the breast. The first two chapters are devoted to the origin and morphology of the breast, and then follows an account of mammary abnormalities. We turn to the chapter on axillary mammary structures with much interest in connection with Mr. Paul's recent case of scirrhus in the axilla arising in connection with long convoluted tubes which opened into the hair-follicles and were associated with acini like those of the mammary gland in their deeper parts; and we find that the author describes long convoluted (?) sweat-glands of unusual length and penetrating more deeply than ordinary sweat-glands, as present in the axilla, and reference is made to the fact that Creighton has seen neoplasms arise from them in dogs. Mr. Roger Williams describes axillary swellings which secrete milk, and gives several illustrative cases, but he regards them as sequestrations of the axillary process of the breast. It seems to us that if milk is discharged from the surface of such lumps either through one small opening or several very minute ones (as described by the author), and not through the nipple, they must rather be regarded as supernumerary milk-secreting structures. Of such a nature seem to be the "axillary lumps" of Champneys.

The pathology of cancer of the breast is well described and well illustrated, and that by a writer who has evidently given very careful consideration to the general pathology of malignant growths. He cannot accept the protozoön theory of the causation of cancer, and he gives us several very powerful arguments against its probability. In this, we must say, we heartily agree with him. We have looked in vain for some notice of a controversy which has lately been going on with reference to what has been called the precancerous stage of cancer of the breast, and the question of diffusion of the growth in the breast rather by a general tendency to changes in the epithelium than to spread of the disease by means of the lymphatics. Possibly the author sees no evidence in favour of this view, an opinion which we hold ourselves; but still he might have given us the arguments on both sides, especially as it has been much debated both on the Continent and in this country of late years.

The chapter on so-called villous duct cancers will be full of information to many. Our knowledge of so-called duct cancer is just ripening; we are getting a clearer knowledge of what we mean by duct cancer, though the term still covers several dissimilar growths. This Mr. Roger Williams points out, and he shows that many growths called duct cancer are not cancer at all, but cystic papillomata. He also describes many growths as tubular

cancers—tumours distinct from the ordinary scirrhous type or acinous cancer. We consider that the growths referred to under this heading described in the Transactions of the Pathological Society might more accurately have been also included under the first group of villous papillomata.

It is, perhaps, to the clinical portion of the work that most surgeons will turn with the greatest interest, and their expectations will not be disappointed. We are very glad to see that Mr. Roger Williams is in thorough agreement with Banks, Watson Cheyne, and Gross as to the advisability of a very free removal of the breast, the pectoral fascia, and the glands in the axilla, together with the whole of its fatty contents, in every case of cancer, whether enlarged glands can be felt in the axilla or not. Again and again in connection with this operation have we been struck with the fact that infected glands were discovered in the fatty tissue removed, which would inevitably have been left behind had not the axilla been cleared out, even though no enlarged glands could be felt before operation. That most important topic, the differential diagnosis of cancer, is ably discussed. The author mentions chronic mastitis and cold abscess as the conditions he has seen most frequently mistaken for it, and describes graphically a clinical lecture given by the celebrated surgeon of Paris, Verneuil, on a young woman with a swelling in her breast, in which he pointed out why he thought it cancer rather than chronic abscess. Verneuil then proceeded to amputate the breast, when an abscess was discovered. Mr. Roger Willlams also mentions tense cysts as liable to be mistaken for cancer. We should certainly have included them amongst the conditions most frequently mistaken for cancer, for we have several times seen the mistake only rectified by an exploratory incision. The subject of tubercular disease of the breast, about which very little was known in this country until within recent years, is well and fully treated of, and we are reminded that, though we in this country have been so backward in recognising it, Velpeau, as long ago as 1854, gave a graphic description of the disease, from which Mr. Roger Williams's account is largely taken.

Enlargement of the Prostate: its Treatment and Radical Cure. By C. W. MANSELL MOULLIN, M.D. Pp. viii., 176. London: H. K. LEWIS. 1894.

Since McGill of Leeds firmly advocated more radical measures in the treatment of enlargement of the prostate, the organ has been the subject of much study and writing, and the author of this work thinks the time has arrived for gathering together and recording what has been done in this field of surgery.

He has himself been a careful observer of prostatic disease, and the present volume forms an important addition to his writings on hypertrophy of the prostate. The task has been accomplished wisely and well, and the book may be taken as a trustworthy and comprehensive guide on this important disease. The view that the catheter is "almost the sole means for obtaining relief" is no longer tenable, and those who still think so will find much in these pages to interest and enlighten them. The book is clearly written and unusually free from typographical errors. The expression "supra pubes"—which we do not like, as it is neither English nor Latin—occurs on pp. 126, 148, and 163. The book is up to date, neatly bound and well printed, and contains an excellent bibliography and index.

The Rectum and Anus. By CHARLES B. BALL. Second Edition. Pp. xiii., 439. London: CASSELL AND COMPANY, LIMITED. 1894. —We took occasion to praise the first edition of this clinical manual when it appeared six years ago; and we now welcome the second edition, which has been largely re-written so as to embrace most of the modern developments in this department of surgery, in which there has been perhaps more advance during recent years than in any other. Dependent on the discovery by Symington of little muco-cutaneous processes called anal valves, a new explanation is given of the formation of irritable ulcer of the anus. A good description is given of the various operations for excision of the rectum, including Kraske's operation, and the one usually adopted by the author by the method of trans-sacral incision. The book is well written throughout. There is not a superfluous sentence. Much care has been taken to include the recent work of German surgeons, while due appreciation is shown to well-known British authorities such as Allingham, Cripps, Bryant, and Treves. This edition well maintains the high reputation of Cassell's clinical manuals.

The Common Forms of Dyspepsia in Women. By ROBERT SAUNDBY, M.D. Pp. 33. Birmingham: CORNISH BROTHERS. 1894.— This volume, containing the Ingleby Lectures of 1894, directs attention to the proposition that the greater part of the stomach troubles which occur in women originate in a neurosis which depends upon general exhaustion from anæmia or overwork. The subject is of much interest, and has an important practical value. The lectures are well worthy of careful study.

Analyses of Twelve Thousand Prescriptions. Compiled by W. MARTINDALE. London: H. K. LEWIS. 1894.—The compiler of these statistics, with a view to the provision of facts for the revision of the *British Pharmacopœia*, has endeavoured to ascertain what changes have occurred during the last decade either

from advances in medical treatment or improvements in the art of pharmacy. Many of the official preparations have not been used, whilst a long list of unofficial preparations has been much in demand. The highest scores have been spiritus chloroformi and tinctura nucis vomicæ.

The Harrogate Mineral Waters. By ARTHUR ROBERTS, M.D. Pp. 48. Harrogate: R. ACKRILL. 1894.—Recent analyses of the waters have been made, and the Corporation are spending large sums in making new baths, a winter garden, and a covered promenade. Harrogate is now able to compete with any foreign spa where sulphur and iron waters are useful for the cure of disease: eighty springs of water containing sulphur and iron with saline constituents in various proportions give a large choice to the invalid, who is still too apt to overlook them all and resort to foreign spas.

Gout. By ROBSON ROOSE, M.D. Seventh Edition. Pp. xii., 229. London: H. K. LEWIS. 1894.—This exceedingly well-written and useful monograph appears to be well up to date; but we regret to find that the author has so poor an opinion of the modern drug piperazine: from a somewhat limited experience we are inclined to think much more highly of its clinical utility, and we expect that in a future edition Dr. Roose will give it greater consideration.

Neurasthenia and its Treatment by Hypodermic Transfusions. By RALPH BROWNE. Pp. 56. London: J. & A. CHURCHILL. 1894.—The method of Doctor Jules Chéron, as practised at the Saint Lazare Hospital in Paris, is here described. An artificial serum, containing chloride, phosphate, and sulphate of soda, is injected hypodermically in indefinite quantity (none of the details of the method are mentioned, and we are led to assume that the injection is not to be intra-venous): the result is thus epitomised: "Bring into action, but maintain in function the great reflex of general tonicity, increasing the power of that function with each transfusion, up to the point where arterial tension has arrived at the normal level and stable conditions which are consistent with health." Why does neurasthenia any longer exist?

Essentials of Nervous Diseases and Insanity. By JOHN C. SHAW, M.D. Second Edition. Pp. 194. Philadelphia: W. B. SAUNDERS. 1894.—This book can only be considered a mere abstract of the chief features of nervous disease. This remark is justified when we add that the subject of insanity is dismissed in thirty-seven small pages. The rest of the book is on the same scale. To take an instance: "Paralysis of the Ocular (*sic*) Motor Nerves" occupies a little over one page, and for the treatment we learn that "Electricity is sometimes applied in these cases. If there is evidence of syphilis, large and increasing doses of iodide of potass." If, as is indicated in the preface, the book is intended for advanced students, they would certainly require

more information as to the kind of electricity to be used, the strength of current, and mode of application. The bald statement that electricity is sometimes applied is worse than useless. It is almost impossible to deal at all satisfactorily with such a large subject in the way that is attempted in this book.

The Clinical Use of Prisms and the Decentering of Lenses. By ERNEST E. MADDOX, M.D. Second Edition. Pp. xi., 170. Bristol: JOHN WRIGHT & Co. 1893.—The first edition of this book met a recognised want; the second has been enlarged and improved. The geometrical and optical properties of prisms are simply but sufficiently discussed, their clinical uses are explained and exemplified. The way in which prisms interfere with the usual association between accommodation and convergence is described, and also their effects in the causation or relief of diplopia. The chapter on "The Study of Convergence" is interesting and complete: the author subdivides convergence into "initial" or "tonic," "accommodative," and "reflex." The anatomical position of most eyes, when freed of all nerve control, is in divergence, as shown in sleep and under anæsthesia. "Initial" convergence gives binocular vision for distance. "Reflex" aids in controlling the proper position of the eyes for all distances, through some cerebral centre which constantly is exercised to maintain vision binocular and definite. "Accommodative" effort for each dioptre should exercise about three-quarters of a metre angle of associated convergence. The practical uses of prisms both in diagnosis and treatment are discussed and summarised with much ability. Among the numerous neurasthenic patients who seek the aid of the ophthalmic surgeon a few will never find relief by the most accurate correction of their refractive errors unless in addition, anomalies of convergence and faulty muscular balance are sought for, and remedied. This volume is a trustworthy guide.

Ophthalmic Nursing. By SYDNEY STEPHENSON, M.B. Pp. xiii., 188. London: THE SCIENTIFIC PRESS, LIMITED. 1894.—We congratulate the author on the complete manual he has produced, one well adapted for the practical use of the educated nurse and well worthy of the careful study of the ophthalmic dresser. A knowledge of the germ theory of disease (even though it be but a theory) is a great incentive to the proper study of contagion and infection, and to the most approved methods of their prevention and treatment. Mention is made of the usual remedies for diseases of the eyes, and their modes of application are discussed. The book is full of practical hints, and "what to avoid" may be illustrated by prevention in the carrying of contagion from one patient to another, or from the patient to the eyes of the nurse herself. The preparations necessary for an operation, and the usual surgical procedures, are briefly sketched, the instruments are illustrated, and various methods of dressing and bandaging are described. A brief

account of the commoner diseases of the eye is given and hints as to their nursing, examination of children, and disinfection, receive ample attention. The book concludes with a glossary of ophthalmic terms.

Notes on Nursing in Eye Diseases. By C. S. JEAFFRESON, M.D. Pp. vii., 90. Bristol: JOHN WRIGHT & Co. 1894.—Our author regards the opinion as prevalent, that eye cases require no special nursing, but that anyone can attend to them. The contents of his book, however, go to prove the importance of special training and knowledge for the nurse who is concerned with ophthalmic practice. There are many ways in which a good ophthalmic nurse at once shows her superiority in the eye wards over one who is merely well versed in general nursing. The book before us gives in simple but definite language the author's opinions as to what his nurse ought to know, in order properly to fulfil the responsibilities of her position. The study of the book may well be recommended to all nurses in this department of surgery; it has good illustrations and contains many useful hints; various methods of applying medicaments, bandages, and electricity are discussed. We think, even if there is no special value in antiseptics, that more rigid rules might have been given for cleanliness of instruments and of surgical dressings.

On Blinding of the Retina by direct Sunlight: A Study in Prognosis. By GEORGE MACKAY, M.D. Pp. 52. London: J. & A. CHURCHILL. 1894.—This excellent monograph is based upon a large number of accidents to the eyesight incurred during the observation of solar eclipses. Part I. contains an historical survey of nearly all the published cases of scotoma from the cause mentioned, and many of them are pretty fully quoted. Part II. gives full notes of seven patients who were under the author's care after the eclipses of June 17th, 1890, and of June 6th, 1891. The ophthalmoscopic appearances, the careful methods of testing for defective function, and the progress, are fully described. In Part III. the nature of the injury is clinically considered. The affected area is so minute that an accurate estimate is not obtained by test types. The scotoma is best measured at a metre distance by small white and coloured discs, and metamorphopsia by fine lines ruled 2 mm. apart—metamorphopsia seems to remain permanently in most of the cases. The sun can be looked at with impunity only by use of very dark glasses, and with a large percentage of the light refracted out of view.

Essentials of Diseases of Eye, Nose, and Throat. By EDWARD JACKSON, M.D., and E. B. GLEASON, S.B., M.D. Second Edition. Pp. 290. Philadelphia: W. B. SAUNDERS. 1894.—The fact that this small volume has run through its first edition shows that it has been appreciated. It is well printed, and the illustrations are numerous and well chosen. The text is arranged in the form of question and answer, and though this arrange-

ment may be very useful to those about to enter for examinations, it is not to be commended for general reading. We dislike the growing tendency to multiply almost indefinitely the books that students are expected to read, and a good practical manual for diseases of the eye, and one for the throat and nose, should render the "essentials" superfluous.

Clinical Diagrams, with Directions for Recording cases of Heart Disease. By GEORGE HERSCHELL, M.D. London: BAILLIERE, TINDALL & COX. 1894.—Most physicians use some mode similar to the diagrams before us for recording the features of the cases of heart disease that come before them. These diagrams supply all that is required for records of the kind, and will doubtless be found very convenient for this purpose. They are issued with and without directions for use: the latter will be useful to those who have not been in the habit of making such records and desire to do more accurate work in the future.

Inebriety or Narcomania: its Etiology, Pathology, Treatment, and Jurisprudence. By NORMAN KERR, M.D. Third Edition. Pp. xxxix., 780. London: H. K. LEWIS. 1894.—This work from the pen of Dr. Norman Kerr, known so well by his connection with the Dalrymple Inebriate Home, and the part he has always taken in the proper treatment of the inebriate, has now been put before the profession in a third edition, which has been enlarged very considerably. The additions chiefly consist in (1) A Study of the Conditions of Etheromania, to which attention has been a great deal directed of late by the cases in Ireland. (2) The Medical Administration of Alcohol. (3) The question of Life Insurance in connection with Inebriates, a most important question. Another subject somewhat allied to it is also treated: "The Relation of Inebriates to the Civil Law and their Criminal Responsibilities." There is also some very interesting information given about legislation for inebriates in our Colonies, the United States, and on the Continent. The book has thus been brought into touch with our present scientific knowledge, while at the same time discussing some of the burning questions of the day.

Caracteristica Terapéutica y Especialización Clínica de las Aguas Termales de La Garriga. Por el Dr. M. MANZANEQUE. Barcelona: TIPOGRAFIA HISPANO-AMERICANA. 1894.—This is an address to the medical society of Cataluña on the therapeutic virtues of the baths of La Garriga, which are situated in the Province of Barcelona. The author lives at La Garriga, and receives patients who are sent to him by the medical men of the neighbourhood. These baths are hot, being of the temperature of 40° centigrade, and contain sulphur, the chlorides and carbonates of soda, potash, and iron, together with a trace of arsenic. The waters are not suitable for drinking, but are used as baths and in the form of douche, and are found to be useful in rheumatism. They also, by the sedative and emollient

action on the integument which they possess, alleviate, if not cure, certain skin affections, and they appear generally to be somewhat analogous to those of Buxton and Harrogate.

Clinical Sketches. Edited by NOBLE SMITH. London: SMITH, ELDER & Co.—This monthly journal, beginning with the present year, makes a new departure in medical journalism. Its purpose is to supply an illustrated record, and it is intended that he who rides may read. The size is convenient, the printing is excellent, and the illustrations under the control of so excellent an artist as the editor should surpass anything recently published. The portrait of William Harvey is a good beginning to the series, which will, we trust, be long continued. The undertaking should receive the hearty support of the profession, and become a brilliant success.

Edinburgh Hospital Reports. Volume Second. Edinburgh: YOUNG J. PENTLAND. 1894.—When we say that the second volume of these Reports is fully equal in excellence to the first, those of our readers who studied the first volume will know that this is very high praise. These volumes must add, if that be possible, to the high reputation of the great Medical University of the North. It is impossible here to attempt to give anything like a systematic criticism of the various papers contained in this volume. We will content ourselves with indicating that there are, amongst others, interesting and important contributions to the examination of the abdomen and intestines, to the treatment of enteric fever, to the symptomatology and pathology of gastric ulcer, dermatitis herpetiformis, on a case of enlargement of liver and spleen with diminution of leucocytes, to the morbid anatomy of Graves's disease, to congenital heart disease, to tricuspid stenosis, and to incompetence of pulmonary valves. There are also papers on albuminuria, acute nephritis, rupture of the kidney, renal calculus, and several articles on rare and interesting forms of nervous disease. Surgery is represented by excellent papers on such topics as the electrolysis of vascular tumours, hints and suggestions in the practice of surgery, and notes on operative surgery. The type, paper, and general get-up of the book leave nothing to be desired, and there are numerous illustrations, many of them in colours, which are admirably executed.

Compulsory Notification in England and Wales in 1892. *State Aid in Relation to Port Cholera Expenses.* By ERNEST HART, D.C.L. Pp. 60. London: SMITH, ELDER & Co. 1894.—These are reprints of papers on subjects which created a good deal of interest at the time, and it will be convenient to sanitary authorities and their officers to possess them in permanent form.

Compulsory Vaccination and Small-pox in Relation to Vaccination. By ERNEST HART, D.C.L. Pp. 48. London: SMITH, ELDER & Co. 1894.—This is one of the most concise and helpful of

the smaller works dealing with the influence of vaccination upon smallpox. Some accurate knowledge on this important point is essential for all practitioners, who are frequently called upon to meet hesitation or objection to vaccination on the part of their patients. A careful study of the few but pregnant facts adduced in this pamphlet should make it easy to persuade parents to accept the protection afforded by vaccination.

Prescribing and Treatment for Infants and Children. By PHILIP E. MUSKETT. Third Edition. Pp. xvii., 334. Edinburgh: YOUNG J. PENTLAND. 1894.—This is an unpretending but practical and useful little book. The information contained in it is generally trustworthy, and the advice as to treatment is judicious and well selected. Experience has enabled the author to make many additions and modifications in arrangement which increase its value and usefulness for ready reference. That a third edition has been called for in three years is the best testimony to the worth of the book. There is a good index.

Alpine Climates for Consumption. By HERBERT JUNIUS HARDWICKE, M.D. Pp. 65. London: J. & A. CHURCHILL. 1894.—Dr. Hardwicke has written several booklets on kindred topics. This one gives with clearness and brevity a very interesting account of the high resorts of the Engadine and the Rhone Valley. It reads like a novel, but is founded on fact and observation.

Sperminum-Poehl in chemischer, physiologischer, und therapeutischer Beziehung. Von Dr. G. BUBIS. Pp. 84. St. Petersburg: BUCHDRUCKEREI VON WIENECKE. 1894.—This is an interesting though perhaps *ex parte* review of the work that has been done on the subject of spermin. The sensational announcements of Brown-Séquard have led to an examination of the chemistry of the subject, and of the base spermin, which appears to be a common product of many glands, such as the thyroid, pancreas, and spleen, and probably of other parts of the body. The question arises whether it is the ferment by which these glands carry on one part of their functions, and in the absence of which we find the cachexia which is so marked after removal of the thyroid. Whether, in fact, when we administer thyroid juice we are not merely employing spermin. Dr. Bubis has collected the literature of the subject under a systematic form. He shows that spermin is distinct from ethylenimin and piperazine, and that it exerts a powerful influence on the oxidation processes of the body, both those in the blood and those in the tissues themselves. When these tend to fail, spermin by a catalytic action reinforces them. Thus, in carbonic oxide and chloroform poisoning, spermin restores the oxidising power of the blood. Moreover, it causes the destruction and elimination of leucomaines, and thus hinders auto-intoxication. Most probably it is but one of several bodies secreted by the organism for similar

purposes as a protection against the failure of the ordinary organs. When the salt is injected no local reaction occurs, in which it differs from Brown-Séquard's emulsion. It has a tonic influence on the nervous system, often removing motor disturbances and the pains of ataxia and cardiac disease, increasing both muscular force and the oxidation of nitrogenous matter. Whether administered by the mouth or by injection it is harmless, and may be used to combat cachexia produced by various diseases and bacterial poisonings. Though not a specific against any one disease, it is a valuable tonic in aiding the tissues to resist the effects of many: wherever, in fact, oxidation processes are diminished. Poehl gives by the mouth twenty-five or thirty drops of a four per cent. solution, or injects a Pravaz syringeful of a two per cent. under the skin. A summary of the results in 200 cases under various observers is added, and the biological importance of the substance is discussed with clearness and brevity.

The Nurseries of Cholera: its Diffusion and its Extinction. By ERNEST HART, D.C.L. Pp. vii., 35. London: SMITH, ELDER & Co. 1894.—This graphic and instructive address, delivered before the Section of Public Medicine of the British Medical Association at Newcastle, August, 1893, deals with the diffusion of cholera from the East, and in particular, with its diffusion through the Meccan Pilgrimage; and lays down concisely, upon a sound basis of common sense, what should be done to prevent this recurring calamity. It is well worth the thoughtful perusal of every one interested in International Preventive Medicine; and it is to be hoped that the time is not far distant at which the adoption of such measures as are indicated may become practicable. The book has in addition an Appendix of the International Cholera Convention of Paris, 1894, and on the Meccan Pilgrimage.

Essentials of the Diseases of the Ear. By E. B. GLEASON, S.B., M.D. Pp. 147. Philadelphia: W. B. SAUNDERS. 1894. —The only fault we can find with this small and unpretending work is that it is written in the irritating form of question and answer. The matter contained in the answers is very good and accurate. A great deal of information is compressed into a small space, and the author has drawn freely upon the best modern authorities for his facts, so as to give a trustworthy and instructive outline of the subject of diseases of the ear. The book can be recommended to students, both ante- and post-graduate.

Myxœdema, Cretinism, and the Goitres. By EDWARD T. BLAKE, M.D. Pp. 89. Bristol: JOHN WRIGHT & Co. 1894.—This book seeks to establish the following points:—1. That Graves's disease in woman is an autotoxis, most frequently caused by the absorption of purulent products; that process being aided, rather than induced, by the toxines of terror or shock. 2. The same products lead to the production of rheumatism in males,

by acting in the same locality; viz., the medulla oblongata. 3. If these products abolish the functions of the thyroid, we may get myxœdema. 4. If these products invade the cortex in large quantity and abruptly, we get a psychosis, as, for example, mania; or some neurosis, such as epilepsy. 5. If the invasion be more gradual and the poisons be more diluted, we get chorea. We think all these points are not only hypothetical, but likely to remain so. The book is well got up, is easy to read, and is entertaining.

Dissections Illustrated. Part III.—The Head, Neck, and Thorax. By C. GORDON BRODIE. Pp. 114. London: WHITTAKER & Co. [1894].—This admirable work, which is to be completed in four parts, has been brought one step farther by the issue of the present number, which deals with the anatomy of the head, neck, and thorax. The coloured plates are twenty in number, and they are models of accuracy and clearness, while additional aids are afforded to the student by numerous diagrams interspersed between the plates. We congratulate the author and the artist (Mr. Percy Highley) on the success of their work.

First Aid to the Injured and Management of the Sick. By E. J. LAWLESS, M.D. Pp. xvi., 262. Edinburgh: YOUNG J. PENTLAND. 1894.—This book contains a good deal of old matter put in a clear way; it will be found useful to those giving ambulance instruction, as well as to pupils for home study. We think the appendix to Part I. might have been omitted, as we consider printed questions and answers lead to a system of cramming. The book is well printed, the illustrations are good of their kind, and the full index will be found valuable.

The Pharmacopœia of the Hospital for Diseases of the Throat. Fifth Edition. Pp. 112. London: J. & A. CHURCHILL. 1894.—The introduction of various new remedies and modifications in the treatment adopted at this hospital rendered it necessary to make considerable alterations in the formulæ of earlier editions, for which the late Sir Morell Mackenzie was mainly responsible. The book will be found very useful as a guide to the most appropriate remedies in the various affections of the throat and nose.

Transactions of the Ophthalmological Society of the United Kingdom. Vol. XIV. London: J. & A. CHURCHILL. 1894.—This volume contains many communications of general medical interest. Notable among these are the papers of Dr. James Taylor on "Optic Neuritis in its Relation to Intra-cranial Tumour and Trephining," and Mr. Jonathan Hutchinson's on "School Ophthalmia." The debates which followed these papers are also reported. Many cases are recorded of most of the exceptional diseases of the eye to which recent attention has been paid.

A Clinical Manual. By ANDREW MACFARLANE, M.D. Pp. xii., 139. New York: G. P. PUTNAM'S SONS. 1894.—In accordance with the fashionable practice of boiling down to concentrated extracts, the author has condensed the work of

the physiologist and the bacteriologist, and has given a concise account of the methods which have shewn themselves to be practicable and useful to the clinical physician. These concentrated products are not always easy of digestion: we prefer them diluted: nevertheless the book appears to us to be an excellent epitome of the larger works on clinical diagnosis.

Asthma and Chronic Bronchitis. By JOHN C. THOROWGOOD, M.D. Pp. 136. London: BAILLIERE, TINDALL & COX. 1894.—This little volume is a new edition of the author's *Notes on Asthma and Bronchial Asthma.* He gives an excellent outline of what is known on the subject, and illustrates the effects of treatment by numerous cases. Case XII. derived benefit from iodide of potassium in five grain doses: this is the only mention of this drug throughout the book. We searched for information on grindelia robusta and the euphorbia pilulifera: both are cursorily mentioned, but the author appears to have had little experience of either. He relies more on arsenic than any other drug, and has not even mentioned "Himrod" and other powders which are in daily use.

Elements of Surgical Pathology. By AUGUSTUS J. PEPPER, M.S., M.B. Fourth Edition. Pp. xvi., 607. London: CASSELL AND COMPANY, LIMITED. 1894.—The fact that this little volume has reached its fourth edition attests its popularity. There is an increase of 75 pages and 15 woodcuts over the last edition, and some new subjects—*e.g.*, acromegaly, mycetoma, myositis ossificans—are considered. There is little to find fault with in the work, except some disproportion in the descriptions of various diseases: thus acromegaly is favoured with three pages, whilst so important and common an affection as appendicitis gets barely twelve lines. We should also have liked to have seen the subject of hernia treated at somewhat greater length. Again, it would perhaps have been better to have devoted a separate chapter to diseases of the breast. The word "breast" is not to be found in the index, and its diseases are described under various titles throughout the volume.

The Album. No. 1, February 4th, 1895. London: THE "ILLUSTRATED LONDON NEWS" OFFICE.—There seems to be no limit to the ingenuity of device which the purveyors of periodical, and especially illustrated, literature display. In this excellently carried out design the idea is to "take a topic of the day, or a distinguished personage . . . and give him, or the topic, sixteen pages of pictures," and in addition to provide a supplement of like size dealing with a special study of Art or Nature. All this is rendered possible by the development of photography and process-work. The illustrations in the number which has been sent us are admirable.

The International Directory of Secondhand Booksellers. Rochdale: JAMES CLEGG. 1894.—This work provides a mass of information interesting to the bibliophile, although we are sorry to

see that this issue does not contain some useful things of which we gladly availed ourselves on former occasions. There are still some noteworthy omissions in the Bibliographical Works of Reference. We should like to see the publication made an annual one.

Pocket Therapeutic Notes. Second Edition. Bristol: FERRIS AND COMPANY. 1894.—This neat and well-printed pocket companion has been well revised, and gives much useful information on the new drugs which are worth knowing. The list of coated pills is very complete; but we often find that the coating materially interferes with the efficacy of the contents. The soluble gelatine capsules are becoming more and more popular, and the list is now largely increased. These and the long list of compressed tabloids must have greatly simplified the process of dispensing. An alphabetical index of diseases and treatment, in eighteen pages, may satisfy inquirers who have no time to consult more trustworthy information.

Notes on Preparations for the Sick.

Diabetic Foods.—G. VAN ABBOTT AND SONS, London.—It is commonly supposed that foods for diabetics must be absolutely free from starch and sugar. We have examined this excellent series of preparations, which have justly a considerable reputation and are the staff of life to thousands of patients. We append the results, which show that neither of the preparations examined is absolutely free from saccharine matter.

Some little latitude is therefore a necessity, as no diabetic obtains food absolutely free from sugar; hence the modern tendency to allow a limited amount, varying with the condition and capacity of each individual patient.

The following are the results we have obtained from an analysis of some of these foods: On extracting with water and adding solution of iodine in potassium iodide, a deep-blue colour of varying intensity is obtained in each case, which disappears on heating, reappearing on cooling, showing the presence of *starch*. On boiling a portion of biscuit with ten per cent. sulphuric acid to convert starch into sugar, we found the amount of sugar, estimated by the Fehling method, to be—

1. Caraway Biscuit ... ... 42 per cent.
2. Almond Cake ... ... 27 ,,
3. Ginger Biscuit ... ... 21 ,,
4. Spanish Biscuit... ... ... 3·375 ,,
5. Soya Hispida ... ... 5.625 ,,

The Gluten Bread and the Gluten Biscotte both showed traces of starch by the iodine test.

Cascara Jelly (Horse-shoe Brand). Codeine, Glycerine, and Tangerine Jelly. Edulcorated Castor Oil. Nitrous Elixir.—C. R. HARKER, STAGG & MORGAN, London.—Samples of these excellent preparations have been forwarded. The **Cascara Jelly** should be an acceptable substitute for the crude bitter extracts of this drug. Some patients cannot swallow capsules, others will not admit that the aromatic preparations are agreeable. A jelly of fruity flavour, with little medicinal taste, and withal decidedly active, must find a somewhat extensive field of utility. The **Codeia Jelly** contains one-eighth of a grain in each drachm. **Castor Oil** is not yet entirely displaced by the newer laxative drugs: the newer preparations of the oil are too good to be overlooked. The **Nitrous Elixir** is introduced as a substitute for Spt. Æth. Nit. B. P. It yields seven times its volume of nitrous oxide gas.

Anti-Asthmatic Cigarettes. Anti-Asthmatic Powder.—S. KUTNOW & Co., London.—It is always difficult to select from the many powders and cigarettes provided for the asthmatic. Those containing datura and lobelia are often depressing to the heart, although efficient in giving relief to the respiratory difficulty. The Kutnow powder contains neither of these drugs: the cigarettes are well-made, with a mouthpiece; they are pleasant to smoke, they burn with regularity, do not go out, and the ash does not fall in an incandescent state. They have a very pleasant aroma, the smoke is not pungent, and the fumes can be freely inhaled in a concentrated state. They contain no tobacco, are entirely medicinal, and are so innocent that the asthmatic wife might anticipate and prevent the attack by joining her husband in his evening smoking-room social pipe.

"Wincarnis," Crown Imperial Invalid Champagne.—COLEMAN & Co. LIMITED, Norwich.—The name of Coleman is inseparably associated with medicated wines for the invalid. The well-known triplet of wine, meat, and malt, now known as **"Wincarnis,"** is followed by a twin combination of champagne with the syrup of phosphates formerly known as Parrish's food. It is an agreeable sparkling beverage, with the ordinary characters of a very sweet champagne, but it is not likely to be quoted in the lists of high-class brands or served at dinner parties to candidates for gout.

Coca Wine.—LORIMER & Co., London.—This is a very agreeable drink which contains a decided flavour of the coca leaf.

Peat Wool.—THE PEAT INDUSTRIES SYNDICATE LIMITED, London.—This is intended as a cheap and effective substitute for absorbent cotton or wood wool. It is a dark brown fibrous

substance, with a pleasant odour, prepared from peat. It readily absorbs fluids when held loosely; but it has the fault of so many other absorbent substances in not proving absorbent when compressed by a bandage. We tried it in a case of pelvic abscess, and found that all discharge remained beneath or trickled out from under it.

Best Olive Oil. Olive Oil Soap. Carbolic Palm Oil Soap. Hospital Antiseptic Soap.—A. & J. WARREN, Bristol.—This well-known firm of Bristol druggists have sent us specimens of their pure olive oil and of three kinds of soap. The oil is of a beautiful clear colour, and is perfectly free from offensive odour, while the soaps are evidently carefully prepared and pleasant to use. The Hospital Antiseptic Soap contains red iodide of mercury, and is a very cheap and effective preparation for hospital use.

Johnston's Ethereal Antiseptic Soap.—PARKE, DAVIS & Co., London.—This soap is in the form of a liquid of a pleasant odour. It is easily washed off with water, and is particularly designed for cleansing a greasy surface of skin preparatory to a surgical operation. We have used it, and found it effectual and handy, as it combines the two essentials (ether and soap).

Savar's Cubeb Cigarettes. Savaresse's Sandal Wood Oil Capsules.—EVANS, LESCHER & WEBB, London.—**Cubeb Cigarettes** are much used in America for hay-fever and catarrh. The specimens sent us are very well made, and constitute a pleasant way of administering an unpleasant drug.

Savaresse's Capsules are covered by a double membrane, which generally remains entire until they have passed the stomach, thus avoiding the nauseating effect of the medicine contained in them. Patients who have taken these capsules prefer them to all others.

Antiseptic Jelly. Antiseptic Cream.—C. J. HEWLETT & SON London. — These preparations are supplied in convenient metallic tubes, and are elegant applications which we can recommend from personal use. The **Jelly** contains 1 in 1,000 of perchloride of mercury, and is a lubricant for surgeons and obstetricians. The **Cream** is a soothing and fragrant application for eczema, intertrigo, or other allied affections. It gives great relief when applied to an inflamed surface.

Ethyl Choride (Bengué).— B. KÜHN, London.—Dr. Bengué's **Ethyl Chloride** is becoming widely known and highly popular as a local anodyne, as well as a local anæsthetic. It is supplied in glass flasks, fitted with capillary tube or jet and closed with a metallic stopper. When the latter is removed and the flask held in the warm hand, a fine spray is immediately ejected, which will cause complete local anæsthesia in about half a minute. The anæsthesia will last about two minutes, which is long enough for tooth extraction, or many operations in minor surgery. It is decidedly superior to the ordinary method of freezing by ether spray.

First Field Dressings.— THE LIVERPOOL LINT CO., Liverpool. —This is a small packet containing a bandage, a piece of sublimated cotton tissue, waterproof jaconette and gauze. It is intended for first aid on the battle-field, and would form an invaluable item in a soldier's knapsack.

Christia-backed Lint.—THOMAS CHRISTY & Co., London.— This is a lint covered on one surface by an impervious backing, which is not only water-proof, but also spirit-, chloroform-, oil- and grease-proof. We have tried it in the treatment of wounds of fingers, and as a dressing for recently-opened small abscesses, and are not altogether pleased with it. The drawback is that the layer of lint is not thick enough to absorb much fluid, and it therefore needs another piece of lint under it, in which case we cannot see its superiority over a piece of lint covered with oiled-silk.

MEETINGS OF SOCIETIES.

Bristol Medico-Chirurgical Society.

January 9th, 1895.

Dr. A. J. HARRISON, President, in the Chair.

Dr. B. M. H. ROGERS opened a discussion on Diphtheria. He said that from a large number of difficult problems in the diagnosis, etiology and treatment of the disease, he had selected some half-dozen questions which he thought might be profitably considered. The disease he considered to be a local one, followed by constitutional infection, and he strongly advocated the elimination of the misleading word "croup" from medical nomenclature.

Some explanation of the almost universal increase in incidence and

mortality from the disease was asked for, and the influence of large schools pointed out. The necessity of bacteriological examination as a help to diagnosis was insisted on, and the difficulties connected with the recognition of the bacillus from that found in pseudo-membranous laryngitis referred to. Some suggestions were made to the probable habitat of the bacillus outside the human body, and the possibility of infection from animals as well as from milk noticed.

Respecting treatment, he referred to the results of American physicians on the value of local applications to the throat, which show that solutions strong enough to be germicidal are dangerous from their poisonous properties, and may cause extension of the disease from their irritating effects; while bland solutions, such as saline solutions, are of equal value and are not attended with danger. The practice of intubation in place of tracheotomy had not, he stated, found favour with English physicians; but there were certain points in its favour, and it should therefore be given further trial.

In conclusion, he referred to the new treatment of the disease by the immunised serum, and sketched briefly the theoretical reasons and the laboratory experience which had led Behring and Roux to recommend it, giving also a few statistics of the results obtained by its use in this country.

Dr. JAMES SWAIN remarked that, speaking generally, he was opposed to intubation of the larynx in diphtheria, as he had on several occasions to perform a subsequent tracheotomy. The success of antitoxin might modify one's views, and where the dyspnœa is slow in onset and there is reason to believe the membrane has not passed beyond the larynx, intubation might be preferred; but where the membrane has reached the trachea and bronchi, and the dyspnœa has been rapidly progressive, then we shall be well advised in performing tracheotomy. The time when either of these operations should be performed must be left to individual judgment in each case; but there are two conditions which he regarded as distinct indications for operation: (1) Periods of calm alternating with paroxysmal attacks of severe dyspnœa, for the calmness is that of exhaustion; (2) when there is a rapid and marked diminution of arterial pressure at the wrist during inspiration in association with the dyspnœa. He spoke in favour of local antiseptics and solvents, and, as the result of original experiments, he thought that the biniodide of mercury in combination with liquor potassæ was best. The use of pilocarpine hypodermically was dangerous.

Dr. W. BARRETT ROUÉ read notes of a case of diphtheria successfully treated by an injection of five cc. of antitoxin *after* tracheotomy had been performed. Seven days after the injection, the urine was free from albumen and the tracheotomy wound healed. The patient, a child four years of age, made a rapid and uninterrupted recovery. There were no sequelæ.

Dr. W. L. CHRISTIE said that the Bristol Hospital for Children and Women had since October received twelve cases notified as diphtheria. Only one failed to pass Mr. Stoddart's bacteriological test, but they all had the usual clinical accompaniments. Antitoxin was used in eight cases; in five, it was combined with tracheotomy. One, aged four, marred antitoxin results by dying of cardiac failure during tracheotomy three hours after admission, when six cc. had been administered. One, aged three, died of cardiac failure four hours after operation, despite five cc. twice repeated. Another, aged six, died on sixth day of diphtheritic broncho-pneumonia. Of the five recoveries, one had abscesses after serum two days uncorked but clear. There was also increased albuminuria from, he believed, elimination of the serum

injected. One or two had paresis of soft palate, but no other complications arose. The dose used is from five to ten cc. (Ruffer), repeated daily if required, by a Debove's sterilisable syringe. The temperature fell if high, or rose if low; the pulse improved, the membrane loosened, and the toxæmia lessened. Alongside these, three were treated *without* antitoxin. One, aged three, mild at first, nearly died of intense nervous prostration and submental cellulitis from tonsillar coccic invasion. One, aged five, died on ninth day of cardiac failure. The tracheotomy wound became infected, and was dry, inflamed, and spreading. The bacilli were long, and prognosis therefore was bad. The other case, mild from the first, with short bacilli, recovered rapidly, as did the non-bacillary case. The treatment is well worth further trial, with of course *fresh* serum and *well-boiled* hypodermic apparatus.

Mr. F. W. STODDART spoke at length on the bacteriology (see p. 18). He exhibited numerous cultures, and showed some photographs by means of the lantern.

Dr. H. L. ORMEROD, during the past two years at the Bristol Royal Infirmary, had treated eighteen cases of diphtheria by intubation, sixteen of which required a subsequent tracheotomy; of the other two, one died from toxæmia and the other recovered. Of six cases treated by Aronson's antitoxin, two—each aged eleven years—made rapid recoveries, and the other four died: these four were, however, all cases in which tracheotomy was necessary, and were aged four and a-half years, three and a-half years, fourteen months and thirteen months.

Mr. T. PAGAN LOWE claimed to have reduced the mortality of diphtheria in his practice to ten per cent. by the local application of alcohol, a result which compared very favourably with the nineteen per cent. mortality obtained with the antitoxin treatment. The alcohol is applied in the form of spirits of wine, brandy, or whiskey, either neat or diluted with an equal quantity of water. He advocated the early disinfection of the throat in all cases, and protective antitoxin injections to members of the same family who were not affected.

Dr. F. H. EDGEWORTH said that there were two classes of cases in which the difficulty of diagnosis was great: those of pharyngeal diphtheria in which there was no membranous exudation and no grave constitutional symptoms, but which, as shown by the subsequent occurrence of paralysis, were really diphtheritic; and those of primary laryngeal diphtheria, where no view of the larynx could be obtained and no membrane had been coughed up. In view of treatment by antitoxin serum, diagnosis was of no material importance in the first class, as there was no risk to life; but in the second it was, and he asked what degree of gradually oncoming pyrexial laryngeal obstruction in a previously healthy child would justify one in employing this remedy. Reference was made to cases illustrating these difficulties.

Mr. J. EWENS remarked that in an extensive country practice in which diphtheria was very common, he found treatment by chlorate of potash and iron, with local applications of liq. ferri perchlor., generally successful; and in no case seen early had the disease, when limited to the pharynx, spread to the larynx. In mild laryngeal complications, inhalation of tinct. iodi with hot water was very useful.

Dr. R. SHINGLETON SMITH said that this discussion should not close without more reference to the local treatment of diphtheria. Prof. Loeffler's results were remarkable[1]: in ninety-six cases treated, three-fourths of which were shown by bacteriological examination to be true

[1] The composition of the fluid used is given on p. 25 of this number.

diphtheria, not a single death occurred. A mixture of guaiacol and glycerine had also been used recently (*Medical Week*, Jan. 4th, 1895). Probably a mixture of guaiacol with menthol in white oil would be found to give good results, or perhaps equal parts of tinct. iodi co. and guaiacol.

February 13th, 1895.

Dr. A. J. HARRISON, President, in the Chair.

Mr. A. W. PRICHARD gave the clinical record of a case of intestinal obstruction in a girl aged thirteen weeks. When the child was admitted into the Infirmary its abdomen was enormously distended. There had been no motion for three days. The abdomen was opened below the umbilicus. One thin-walled viscus filled the upper three-fourths of the abdominal cavity. This was tapped and then opened freely. Fæces and gas escaped. The wound was sewed to the parietes. For nine days the patient did well. Fæces passed freely from wound and anus. On ninth day death took place from peritonitis. The autopsy disclosed a congenital malformation which was described in a paper by Mr. H. F. Mole, in whose absence it was read by Dr. F. H. Edgeworth. The large intestine bifurcated two inches beyond the cæcum: one branch had the normal situation of the colon and ended in a rectum; the other branch, after a short course, opened into a large skin-lined sac, from which it was continued as a second tube, of constricted calibre, ending in a rectum lying in front of the other. The proctodeum opened into both recta. The other organs were normal. The sac was thought to be a dermoid cyst. Obstruction was probably brought about by distension of the sac, owing to the (congenital or acquired) narrowing of the intestine beyond it, with fæces and flatus, whereby the other large intestine was occluded. No similar case could be found recorded in medical literature.

Dr. J. E. PRICHARD exhibited the following specimens: (1) Portion of intestine of an infant five days old, in which there was a complete occlusion of the ileum a few inches above the ileo-cæcal valve. The site of the malformation was probably the point where the omphalo-mesenteric duct opens into the intestinal tract. (2) An anencephalous fœtus of about the eighth month. (3) Specimen of horse-shoe kidney.

Dr. A. E. AUST LAWRENCE brought forward two cases of complete inversion of the uterus. The first was caused by the placenta being dragged away by means of the cord. The inversion had existed three months. Taxis under chloroform failed to replace the uterus. It was reduced in thirty hours by constant elastic pressure with Aveling's repositor. The second case was produced by the dragging of a polypus growing from the fundus uteri, and which had become extruded beyond the vulva. The polypus was removed, and the uterus re-inverted itself in twenty-four hours.

Mr. J. EWENS showed a specimen of parovarian tumours (right and left sides) removed successfully from a woman, æt. forty-seven, who had been treated for four years for retroverted uterus, the interest attaching to the case being the multilocular character of the tumours. A hard swelling was felt behind the uterus, and a tumour reached to the umbilicus, with a somewhat indistinct though definite fluctuation. The ordinary operation was performed. The right tumour consisted of six cysts, several of which had to be tapped before it could be delivered. The ovary and Fallopian tube were removed. The left tumour contained four cysts, two of which being tapped, it shelled out of its bed, no pedicle existing. The fluid of all the cysts was clear.

March 13th, 1895.

Dr. A. J. HARRISON, President, in the Chair.

The PRESIDENT spoke in appropriate terms of the loss the Society had sustained in the death of Dr. J. G. Davey, a Past President. A resolution of sympathy with the family was passed.

Dr. W. L. CHRISTIE showed a patient with asymmetrical development of cranium and lower jaw, with spinal symptoms; and another patient with peripheral neuritis, showing trophoneurotic changes.

Mr. J. GREIG SMITH exhibited: (1) Large sarcoma of breast. (2) Hydronephrotic kidney, due, he considered, to pressure on the ureter. The patient had extreme prolapse of the uterus. (3) Sub-phrenic abscess cavity, caused by a perforating ulcer of the stomach. (4) Malignant stricture at the ileo-cæcal valve. (5) Gall-stones from two recent operation cases. (6) Small calculus from the female bladder.

The PRESIDENT exhibited a specimen of necrosis of lower jaw in a Polar bear; and fracture of the base of skull in a Brahmin bull.

Dr. J. MICHELL CLARKE read a paper, illustrated with numerous diagrams and specimens, on two cases of extra-dural pressure on spinal cord: (1) from inflammatory swelling in a case which presented symptoms of syringo-myelia; (2) from a localised tubercular mass in caries. Mr. Barclay described the operation he had performed in the first case, mentioning the great difficulty he had experienced in stopping the excessive hemorrhage.

Mr. J. PAUL BUSH read a paper on a case of foreign body in the bronchus of a child aged eight, and exhibited a steel hat-pin, over three inches in length, which had been expelled through the mouth three months after tracheotomy had been performed.

J. PAUL BUSH, *Hon. Sec.*

Devon and Exeter Medico-Chirurgical Society.

Annual Meeting, January 18th, 1895.

Mr. E. J. DOMVILLE, President, in the Chair.

The Report of the Council was read. The following officers were elected for the ensuing year:—President; Mr. G. H. Johnson: Vice-president; Mr. J. D. Harris: Treasurer; Mr. J. D. Harris: Honorary Secretary; Dr. R. V. Solly: Members of Council; Mr. J. L. Callaghan, Dr. P. M. Deas, Dr. W. Gordon, Mr. F. Morgan, Mr. J. H. Potter, and Dr. J. R. Thomas: Auditors; Mr. R. Coombe and Mr. J. Mortimer.

Mr. A. C. ROPER read notes of a case of rheumatic pericarditis and endocarditis with profound anæmia.

Mr. R. COOMBE opened a discussion on the present position of antiseptics in surgery.

February 15th, 1895.

Mr. G. H. JOHNSON, President, in the Chair.

A vote of thanks was given to Dr. A. G. Blomfield, the retiring Secretary.

Dr. J. RAGLAN THOMAS read a paper on infantile convulsions.

Mr. J. H. POTTER read a paper on some points of diagnosis and treatment of venereal diseases.

R. V. SOLLY, *Hon. Sec.*

The Library of the Bristol Medico-Chirurgical Society.

The following donations have been received since the publication of the list in December:

February 28th, 1895.

Sir Thomas Dyke Acland, Bart. (1) ... ... 1 volume.
J. Michell Clarke, M.D. ... ... 23 volumes.
Obstetrical Society of London (2) ... ... 2 ,,
The Surgeon-General, United States Army (3) ... 1 volume.
The Editors of the Pathological Report of University College, London (4) ... ... 1 ,,
J. Wright & Co. (5) ... ... 1 ,,

Unbound periodicals have been received from Dr. Shingleton Smith.

FIFTEENTH LIST OF BOOKS.

The titles of books mentioned in previous lists are not repeated.

The figures in brackets refer to the figures after the names of the donors, and show by whom the volumes were presented. The books to which no such figures are attached have either been bought from the Library Fund or received through the *Journal*.

Anderson, J. ... *Medical Nursing.* (Ed. by Ethel F. Lamport.) 2nd Ed. 1895

Bentley and Rev. C. G. Griffinhoofe, A. J. M. *Wintering in Egypt* 1894
Black, D. C. ... *Address to the Physiology Class in Anderson's College. Session* 1891—92 1891
Boxall, R. ... ... *The Public, the Profession, and Medical Charities* ... 1894
Burdett, H. C. ... *Helps in Sickness and to Health* 1894

Catalogue (Index) of Library of Surgeon-General's Office, U.S. Army Vol. XV. (3) 1894
Cerna, D. ... ... *Notes on the Newer Remedies.* ... . 2nd Ed. 1895
Cooper, A. ... ... *Syphilis.* 2nd Ed. (Ed. by E. Cotterell) 1895
Creighton, C. ... *A History of Epidemics in Britain.* Vol. II. 1894
Crookshank, E M. *The Prevention of Small-pox* 1894

Eardley-Wilmot, R. *On the Natural Mineral Waters and Spa of Leamington* 1890

Feachem, Mary... *Food for the Sick and Convalescent* 1895

Felkin, R. W. ... *On the Geographical Distribution of Tropical Disease in Africa* 1895
Fenwick, E. H. ... *Urinary Surgery* 1894
Fink, G. H. ... *Methods of Operating for Cataract* 1894
Fletcher, R. ... *Anatomy and Art* 1895
Frerichs, F. T. ... *Atlas of Pathological Anatomy Illustrative of Diseases of the Liver.* (Tr. and Ed. by C. Murchison.) Two Parts 1861–62
Frothingham, L. . *Laboratory Guide for the Bacteriologist* 1895

Gowers, W. R. ... *The Dynamics of Life* 1894
Griffinhoofe, A. J. M. Bentley and Rev. C. G. *Wintering in Egypt* ... 1894

Hart, E. ... ... *The Sick Poor in Workhouses—Reports, &c.* First Series 1895
Hewitt, F. W. ... *Anæsthetics and their Administration* 1893
Hutchinson, J. ... *A Descriptive Catalogue of the New Sydenham Society's Atlas of Diseases of the Skin.* Two Parts ... 1869–75

Long, J. W. ... *Syllabus of Gynecology* 1895

Martin, B. R. ... *Diphtheria and its Treatment.* ... ... 2nd Ed. 1895
Möller, F. P. ... *Cod-Liver Oil and Chemistry...* 1895
Morton, A. S. ... *Refraction of the Eye.* ... ... 5th Ed. 1894

Oliver, G. ... ... *Pulse-Gauging* 1895
Oliver, J. ... ... *Abdominal Tumours and Abdominal Dropsy in Women* 1895
Ónodi, A. ... ... *The Anatomy of the Nasal Cavity* 1895

Pathology, An Atlas of Illustrations of (New Syd. Soc.). Fasc. I.—IX. 1877-94

Schimmelbusch, C. *The Aseptic Treatment of Wounds.* (Tr. by A. T. Rake) 1894
Sheild, A. M. .. *Diseases of the Ear* 1895
Swanzy, H. R. ... *Diseases of the Eye.* 5th Ed. (Ed. by L. Werner.) 1895
Sydenham in the Oxford Museum, The Unveiling of ... ... (1) 1894

Tomlins, W. H.... *The Droitwich Brine Baths* 1895

Waldo and D. Walsh, F. J. *Bread, Bakehouses, and Bacteria* 1895
Walsh, F. J. Waldo and D. *Bread, Bakehouses, and Bacteria* 1895

TRANSACTIONS, REPORTS, JOURNALS, &c.

American Journal of Obstetrics, The ... ... Vol. XXX. 1894
American Journal of the Medical Sciences, The ... ... Vol. CVIII. 1894
American Surgical Association, Transactions of the ... ... Vol. XII. 1894
Archives de Neurologie ... ... Tome XXVIII. 1894
Birmingham Medical Review, The ... . Vol. XXXVI. 1894
Boston Medical and Surgical Journal, The ... ... Vol. CXXXI. 1894
Bristol and Clifton Directory ... ... (5) 1895
British Journal of Dermatology, The ... ... Vol. VI. 1894
British Medical Journal, The.... ... ... Vol. II. for 1894
Canadian Practitioner, The ... ... Vol. XIX. 1894

Cincinnati Lancet-Clinic, The... ... ... Vol. LXXII. 1894
Clinical Journal, The ... ... Vol. IV. 1894
Directory (International) of Second-hand Booksellers, The 1894
Dublin Journal of Medical Science, The ... ... Vol. XCVIII. 1894
Gazette de Gynécologie ... ... Tome IX. 1894
Gazette des Hôpitaux 1894
Glasgow Medical Journal, The ... ... Vol. XLII. 1894
Hazell's Annual 1895
Hospitals—
Middlesex Hospital, The—Reports of the Medical and Surgical Registrars and Pathologist for 1893 1894
Saint Thomas's Hospital Reports ... ... Vol. XXII. 1894
University College, London.—Pathological Report. (4) Vol. IV. 1894
Westminster Hospital Reports, The ... ... Vol. IX. 1895
Journal of Cutaneous and Genito-Urinary Diseases ... ... Vol. XII. [1894]
Journal of Laryngology, Rhinology, and Otology, The ... Vol. VIII. 1894
Journal of Nervous and Mental Disease, The ... ... Vol XIX. 1894
Lancet, The ... ... Vol. II. for 1894
Mathews' Medical Quarterly ... ... Vol. I. 1894
Medical Age, The ... ... Vol. XII. 1894
Medical and Surgical Reporter, The ... ... Vol. LXXI. 1894
Medical Chronicle, The ... ...N.S. Vol. I. 1894
Medical Directory, The 1895
Medical News, The ... ... Vol. LXV. 1894
Medical Press and Circular, The ... ... Vol. CIX. 1894
Medical Record ... ... Vol. XLVI. 1894
Medical Society of London, Transactions of the ... ... Vol. XVII. 1894
Medico-Chirurgical Transactions ... ... Vol. LXXVII. 1894
Münchener Medicinische Wochenschrift 1894
New York Medical Journal, The ... ... Vol. LX. 1894
Obstetrical Society of London, Transactions of the. (2) Vols. XXXIV., XXXV., 1893-94; Vol. XXXVI., Parts I.—III. 1894
Post-Graduate, The ... ... Vol. IX. [1894]
Practitioner, The ... ... Vol. LIII. 1894
Progrès Médical, Le ... ... Tome XX. 1894
Retrospect of Medicine, Braithwaite's ... ... Vol. CX. 1895
Revue de Laryngologie, d'Otologie et de Rhinologie ... Tome XIV. 1894
Revue générale d'Ophtalmologie ... ... Tome XIII. 1894
Teratologia ... ... Vol. I. 1894
Therapeutic Gazette, The ... ... Vol. XVIII. 1894
Union médicale, L' ... ... Tome LVIII. 1894
University Medical Magazine ... ... Vol. VI. 1894
Victoria—
Nosological Index 1862-3
Vital Statistics of the Colony of Victoria for 1872 1874
" " " 1874 1875
Whitaker's Almanack 1895
Wiener klinische Wochenschrift 1894
Zeitschrift für Krankenpflege 1894

Obituary.

JAMES GEORGE DAVEY,

M.D., M.R.C.S., L.R.C.P., L.S.A.

We have once more to record the death of one of the former Presidents of our Society.

Dr. J. G. Davey died on February 20th, at the advanced age of 82. He began his professional life as a general practitioner, but circumstances soon transferred him to the special branch of medical work which he continued to the end, viz., the treatment of lunacy and the care of the insane; and it will be seen from this short account of his life that in these he had a very large and varied experience.

James George Davey was born in 1812; he became L.S.A. in 1833, M.R.C.S. in 1836, L.R.C.P. in 1842 and M.D. of St. Andrew's. He started in general practice at Portsmouth in 1835, but about 1840 he succeeded in obtaining an appointment as one of the Medical Officers of Hanwell Lunatic Asylum, which he held until 1844. So well did he satisfy the authorities that he was selected to organise and superintend an asylum that was being built at Colombo, Ceylon, for the reception of Cingalese and other native lunatics, who had hitherto been housed with lepers and others of the natives afflicted with maladies requiring seclusion or confinement. He carried on the work at Ceylon for six years, when, chiefly on economical grounds, a change was made and the duties were transferred to one of the army medical officers. Dr. Davey then came back to England.

The year after his return Colney Hatch Asylum was opened, and Dr. Davey was appointed one of its medical officers, remaining there until 1853, when he took over the Asylum at Northwoods, near Bristol, which was established and carried on by the late Dr. Henry Hawes Fox (who had been Physician to the Infirmary from 1816 to 1829), succeeded by his son, the late Dr. (afterwards Rev.) W. C. Fox.

There Dr. Davey lived till 1872, when he came to Bristol and took a house at Redland. He then practised generally as physician, but was principally consulted in cases of mental derangement, to the study of which he had devoted nearly the whole of his professional life.

After the death of his wife in 1886, he finally retired from practice, and lived principally with his daughters; he died at the house of Mrs. Ralph Bernard in Kensington. At his own especial desire he was cremated at Woking on the 24th of February.

Dr. Davey must be described as a practitioner of the old school, and he had the courage of his convictions. He was not afraid to bleed his patient if he thought it advisable, or to give the remedies he considered requisite in doses sufficient to have the definite effect, and he practised according to his decision as to what the right course ought to be, as was the custom before the laity became so wise in medical

matters, and such critics and judges of the suitable treatment in each case, as they now profess to be.

Dr. Davey's presence was always welcome at the meetings of the Bristol Medico-Chirurgical Society, for he spoke pleasantly and with well-chosen language, and having a few words to say upon very many of the subjects that were brought forward, he helped to make the meetings more lively; and was it not the case that in those earlier meetings in the old room there was a more genial and less ponderous atmosphere than obtains now in the more formal proceedings in our grand new library? He was a regular attendant, and became President in 1882-83, when he gave the usual inaugural address, containing expressions of his own special views, not altogether in unison with the opinions of the majority of his hearers.

It is somewhat difficult to describe Dr. Davey's ideas on many points connected with medicine and its allied sciences, and it is still more difficult to reconcile one set of his opinions with some others. He was a strict follower of Dr. Elliotson in his belief in animal magnetism, and in the transference of the special senses from their normal organs to other parts of the body during the hypnotic state: he was a firm believer in phrenology and the doctrines of Gall and Spurzheim, not infrequently quoting them in his remarks at our meetings when the discussion of some brain case gave him a suitable opening; and latterly he would maintain that the scientific world was coming round to these same opinions, inasmuch as they now recognised the localisation of function of various parts of the body in particular parts of the brain. He fully recognised the existence of "Moral Insanity" as an actual disease of the brain and, biassed by his phrenological ideas, he was wont to attribute many if not most of the crimes so continually recorded in the daily papers, either to disease or to some peculiarity in shape or size of certain "organs" in the cranial map of Gall and Spurzheim.

At that time Dr. Davey was also a firm believer in spiritualism, and he held, according to his statement, daily communication with departed friends. He went so far as to tell the writer of this notice that he not only had daily communication with his dead son, but had also received written communications from him touching on a question of medical treatment.

He was fond of writing, although he cannot be called a voluminous writer. He sent many contributions to the medical press of former days, and wrote and published many pamphlets on medical and political and medico-legal subjects. He discussed in this way, from his points of view (insanity and phrenology), our right of trying and condemning criminals convicted of wilful murder when they were only suffering from the effects of brain disease. He published *Contributions to Mental Pathology*, and later, an octavo volume on *The Physiology and Pathology of the Ganglionic Nervous System.*

Socially, Dr. Davey was a pleasant and cheerful companion. He much enjoyed the society of his fellow-members, whether of our Society or the Bath and Bristol Branch of the British Medical Association, on the Council of which he sat for many years; and at any of our convivial meetings he seemed to be particularly in his element. On the occasion when he was the President of the Bath and Bristol Branch, in the year 1859, he most hospitably received the Council, many of whom drove over to Northwoods from Bristol and Bath. After showing them the establishment and grounds, he entertained them at a very sumptuous dinner.

Presentation to Dr. J. G. Swayne.

A very interesting event took place at the Clifton Down Hotel on the evening of February 20th, when about sixty medical men sat down to a complimentary dinner, given to Dr. J. G. Swayne in commemoration of the jubilee of his connection with the Bristol Medical School.

In October last Dr. Swayne terminated his active work at the school, having occupied the post of Lecturer on Midwifery for fifty years, and the occasion seemed a fitting one for emphasising such a remarkably long and eminent service by some token of regard and esteem. A committee, consisting of Mr. J. Paul Bush, Dr. J. Michell Clarke, Dr. A. J. Harrison, Dr. E. Markham Skerritt, and Dr. R. Shingleton Smith, soon succeeded in enlisting the support of a large number of the profession in Bristol and the neighbourhood, enabling them to procure a handsome service of plate which was to be presented at the dinner.

Dr. E. Long Fox presided, and after dinner Dr. Henry Marshall, in well chosen sentences, proposed the health of the guest of the evening, alluding to the circumstance that the date marked not only the jubilee of Dr. Swayne's lectureship, but also the jubilee of his graduation as Doctor of Medicine at London University. He spoke of the success of Swayne's *Aphorisms*, and also of the esteem with which Dr. Swayne was universally regarded. Allusion was also made to the liberality which Dr. Swayne displayed at the time of erecting the new Medical School buildings, and to the amount of time and work which he had continually given to the school during a long and busy private and hospital practice.

Mr. Arthur W. Prichard, in the absence of his father (Mr. Augustin Prichard), who was prevented by indisposition from being present, spoke in support of the toast.

Mr. Nelson C. Dobson added a few words, alluding chiefly to Dr. Swayne's work in connection with the local branch of the British Medical Association.

Dr. Markham Skerritt read letters from several who were unable to be present, and then mentioned that a few hours before the dinner the Council of University College, Bristol, had conferred the title of Emeritus Professor of Midwifery upon Dr. Swayne. He read a list of the subscribers to the testimonial, which was produced for the inspection of the guests. It consisted of a large silver tray, a bowl, and a pair of loving cups, all bearing Dr. Swayne's arms and crest. On the tray was the following inscription:

"Presented, with a service of plate, to Joseph Griffiths Swayne, M.D., Emeritus Professor of Midwifery in University College, Bristol, by his colleagues, friends, and former pupils, as a mark of their personal esteem, and in grateful recognition of his eminent services in the teaching of obstetric medicine and gynæcology in the Bristol Medical School and University College, Bristol, during the long period of fifty years. February 20, 1895."

On the back were engraved the names of the donors.

Dr. Long Fox in a few graceful words made the presentation, and the toast was drunk with great enthusiasm.

Dr. Swayne returned thanks, and alluded to the fact that his little work, *Obstetric Aphorisms*, reached its tenth edition in 1893, and that altogether 20,000 copies had been published. It had also been translated into eight languages, one of which was Hindustani.

SCRAPS

PICKED UP BY THE ASSISTANT-EDITOR.

The Means to the End.—Husband: "I feel completely prostrated. I wish I was dead!" Wife: "Well, why don't you let me send for a doctor?"

Clinical Records (10).—Fond mother: "Oh, doctor, we've had such a fearful fright! We thought Johnnie had swallowed a sovereign." Doctor: "And are you sure he hasn't?" Fond mother: "Quite sure, it was only a shilling."

General Education and Medical Training.—Editors are always lamenting that before their contributors' communications can be given to the printer, a considerable amount of time is required for the correction of errors of grammar and spelling. It ought not to be necessary to say that those who write for the press should take as much care as possible that no revision of style or composition should be required after their papers leave their hands. Some authorities, however, tell us that in the case of doctors there has often not been the preliminary training which can ensure so desirable a result.

Dr. George M. Gould, the editor of the *Medical News*, is qualified to speak on this subject. In a paper on "The Duty of the Community to Medical Science." he says: To take a boy so untrained that he can't spell correctly any five Anglo-Saxon words, and after a few months' lecture-taking and mnemonic cramming to place in his hands the awful responsibility of the life and health of hundreds or thousands—surely this is a farce worthy only of our civilized barbarism. To illustrate, let me show you a printed sheet containing a student's notes on the differential diagnosis of four varieties of tumors. It needs to be remembered that the student making the notes was about to graduate in 1893, and that the school in which he studied makes much of its preliminary entrance examinations. The young man was an amateur printer. He set up the type himself, corrected the proof, and himself printed off a number of copies for the use of his classmates.

ENCEPHALOID.

1 Soft elastic not uniformly so
2 Groth Rapid Large
3 Adhesions, Earley and Slight
4 Pane, Wandering until ulceration then fixed and servere
5 Veins Large
6 Foul ulcer fungating edges excurvaled undermined much bleding
7 Glandular envolvement early
7½ Comes at any age
8 Seat, Breast, Testicles, Uteris, Overies, Prostate and Salivery glands.
9 Duration 9–12 m fatal.
10 Nipple not retracted.
11 Histary Bad.

SCHIRRUS.

1 Hard, inelastic.
2 Groth, Moderate and Small.
3 Adhesions, Late.
4 Pane, Earley and sharp fixed.
5 Veins, Modatly large
6 Edges, Hard thickened abrupt little bleeding.
7 Glandular envolvement, Late.
7½ after 45X
8 Seat, breast uterus stomach rare in overies and testies and Prostat
9 Fatal 18–36 mts.
10 Retracted nipple.
11 History good, excema of nipple may precid it Pagits diseas.

SARCOMA.

1 Firm, generally irregular soft and flucuating apperently.
2 Rapid and Slow, Groth large size.
3 Adhesions early.
4 Pane slight until, ulceration then more
5 Veins moderate.
6 Foul ulcer, great bleeding,
7 Glandular envolvement late.
7½ Any age.
8 Seat connective tisue extremities of bones periosteum, brest.
9 Long duration before fatal
10 Nipple not retracted.
11 History good.

ADENOMA.

1 Hard elastic.
2 Groth slow.
3 Adhesions rare.
4 Pane neuralgic and menstral.
5 Veins not enlarge
6 No Bleading
7 No glandular envolvement.
7½ Under, 30
8 Seat, brest.
9 Not fatal.
10 Nipple not retracted.
11 History good

Medical Philology (XIII.).—The *Catholicon* gives "**Brostyn̄**; *herniosus*. **A Brostynes**; hernia." *Brostynes* was a variant of Burstness, which for centuries was used as a term for hernia. Mr. Herrtage's notes are:

> "*Herniosus*. He that is burste or hath his bowells fallen to his coddes. *Hernia*. The disease called bursting." Cooper. Lyte, in his edition of Dodoens, 1578, tells us, p. 87, that "the decoction of the leaues and roote [of the Common Mouse eare] dronken, doth cure and heale all woundes, both inward and outward, and also *Hernies*, *Ruptures*, or *burstings*;" and again, p. 707, that "the barke [of Pomegranate] is good to be put into the playsters that are made against *burstinges*, that come by the falling downe of the guttes." "*Hernia*. Bolnyng of the bowaylles. *Herniosus*. Brostyn." Medulla. Cotgrave mentions a plant, "*Boutouner*. Rupture-wort, Burst-wort." "*Hernia*, broke-ballockyd." Wright's Vol. of Vocab., p. 177.
> "*Hernia*, burstnesse." Stanbridge, *Vocabula*.

The *Promptorium* contains "**Brostyn** man, yn the cod. *Herniosus*."

Florio, in his Italian Dictionary (*A Worlde of Wordes*, 1598), gives "**Hernie**, a kind of swelling or inflammatition in a mans cods or stones, but properlie the bursting or rupture of a man when the bowels fall into the cods." Minsheu's *Guide into the Tongues*, 1625, has "**Búrstnesse**, the bowels being fallen into the Cods, making them as the cod of a Bull." In the English and French addition to Cotgrave (1632) is "**Burstnesse**, Rompure, rupture; hérgne, greveure, hernie, hydrocele." "Hergne" and "hernie" are given by Cotgrave as "Bursting; or a rupture within the cods." "Greveure" is defined as "An inward rupture or bursting (of the lower part of the bellie) or an extraordinarie swelling of the cods, by the bowels falling into them, a bursting, or being burst," and "herné" as "Burst; hauing a rupture about the Priuities." In Beaumont and Fletcher's *Scornful Lady* (v. 3), Savil, speaking to Young Loveless, says of his eldest boy:

> "He was born bursten; and, your worship knows,
> That is a pretty step to men's compassions."

"Bursten" appears in the additon to Cotgrave as "grevé, hergneux, herné."

The inclusion of hydrocele in the definition in Cotgrave shows that there was confusion of terms as well as of diagnosis. The term rupture was employed in reference to hydrocele, in language which was not merely popular. The well-known surgeon, Percival Pott, in 1762 published *Practical Remarks on the Hydrocele, or Watry Rupture*. A copy of this is in the Bristol Medical Library.

It is strange that Hernia (the etymology of which is uncertain) and Bursting or Rupture should, unless qualified by some further description, have become almost exclusively used for one surgical affection. It is much the same with Fistula, which has no special significance. This has led more than one person into error. For instance, the king in *All's Well that Ends Well* is represented as suffering from a fistula (I. i. 39). Many people have too hastily concluded that the fistula was an anal one. Here was something which Mr. Bowdler did not understand, and of course he was offended by it. He made short work of it, and cut out the passage. Dr. William Bodenhamer (*New York Medical Journal*, Feb. 10th, 1894, p. 177), in an article on "Incidents in the History of Anal Fistula," says: "Shakespeare has rendered anal fistula quite notorious by making it a very important feature in his play, *All's Well that Ends Well*." And even so well informed a person as G. B. S., writing (*Saturday Review*, Feb. 2nd, 1895, p. 151) upon a performance of *All's Well that Ends Well*, evidently considers that a fistula-in-ano was the complaint which Helena succeeded in curing by means of a prescription which her father had left her. There can be little doubt that Shakspere took the story of the play from Painter's *Palace of Pleasure*, in which the passage from Boccaccio's *Decameron*, containing the mention of the king's malady is thus translated from the Ninth Novel of the Third Day: "The Frenche Kyng had a swellyng upon his breast, whiche by reason of ill cure, was growen to a Fistula, and did putte him to marveilous paine and grief." The labour of expurgation and the squeamishness that have been exercised on this passage have therefore been quite wasted.

The plant which Cotgrave mentions is "Boutonnet," not "Boutouner" as quoted by Mr. Herrtage. Burst-wort is given in the *New English Dictionary* as "an old name for *Herniana glabra*, a herb formerly thought helpful for curing ruptures." In the addition to Cotgrave its equivalents are "Herbe au Turc, hermole, herniaire."